

# A Guide to Field Philosophy

Case Studies and Practical Strategies

Edited by Evelyn Brister and Robert Frodeman



# A GUIDE TO FIELD PHILOSOPHY

Philosophers increasingly engage in practical work with other disciplines and the world at large. This volume draws together the lessons learned from this work—including philosophers' contributions to scientific research projects, consultations on matters of policy, and expertise provided to government agencies and non-profits—on how to effectively practice philosophy. Its 22 case studies are organized into five sections:

- I Collaboration and Communication
- II Policymaking and the Public Sphere
- III Fieldwork in the Academy
- IV Fieldwork in the Professions
- V Changing Philosophical Practice

Together, these essays provide a practical, how-to guide for doing philosophy in the field—how to find problems that can benefit from philosophical contributions, effectively collaborate with other professionals and community members, make fieldwork a positive part of a philosophical career, and anticipate and negotiate the sorts of unanticipated problems that crop up in direct public engagement.

Key features:

- Gives specific advice on how to integrate philosophy with outside groups.
- Offers examples from working with the public and private sectors, community organizations, and academic groups.
- Provides lessons learned, often summarized at the end of chapters, for how to practice philosophy in the field.

**Evelyn Brister** is Associate Professor in the Philosophy Department at Rochester Institute of Technology. She has a PhD in Philosophy and an MS in Environmental Science, and she has written articles on the philosophy of sustainability, environmental decision-making, interdisciplinary collaboration, and scientific objectivity.

**Robert Frodeman** has taught at the University of Colorado and the University of North Texas. He holds a PhD in Philosophy and an MS in Environmental Science, and his research ranges across environmental philosophy and public policy, the philosophy of science and technology, and the philosophy of interdisciplinarity. He is the author or editor of 16 books, including the *Oxford Handbook of Interdisciplinarity* (2010 and 2017) and *Transhumanism, Nature, and the Ends of Science* (2019).



“Field philosophy promises—and delivers—nothing less than philosophy’s return to its pre-academic roots as reflective being in the world. What is most striking about the philosophers assembled in this volume is that they would probably be in violent disagreement over many purely technical philosophical issues, yet they are all capable of turning their philosophical skills to the greater common good.”

*Steve Fuller, University of Warwick*

“At least since the 1980s efforts have been made in various quarters of the English-speaking philosophical community to break free from the Western model of academic specialization and detachment. This volume adds new dimensions to the project, going deeper in conceptualization (the theory of field philosophy), broader in reach (from science and engineering to design, fracking, addiction, and human trafficking), and more expansive in participants (33 from North and South America and Europe).”

*Carl Mitcham, Renmin University of China*



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Case Studies and Practical  
Strategies

*Edited by Evelyn Brister and  
Robert Frodeman*



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# CONTRIBUTORS

**Roksana Alavi** is Associate Professor of Interdisciplinary Studies in the College of Professional and Continuing Studies at the University of Oklahoma, where she teaches courses on human trafficking, leadership ethics, and diversity. She is a core affiliate faculty in the Women and Gender Studies program, Department of Philosophy, Center for Social Justice and the Iranian Studies Program. She holds a PhD in Philosophy as well as a Graduate Certificate in Women's Studies.

**Alisa Bierria** is Assistant Professor in the Department of Ethnic Studies at the University of California, Riverside. She has a PhD in Philosophy, and she has been a leader in Black feminist anti-violence organizing for 20 years. She is developing a manuscript entitled *Missing in Action: Agency, Race, and Invention*, which explores how intentional action is socially imagined in contexts of anti-black racism, carceral cultures, and gendered violence, requiring a pluralistic framework for understanding human agency. Alisa co-founded several community-based organizations, including "Survived and Punished," a national project that develops organizing, policy, and research strategies to challenge the criminalization of survivors of gendered violence.

**Adam Briggie** is Associate Professor of Philosophy and Religion at the University of North Texas. He is the author of *A Rich Bioethics* (University of Notre Dame, 2010), co-author of *Ethics and Science: An Introduction* (Cambridge University Press, 2012), author of *A Field Philosopher's Guide to Fracking* (Liveright, 2015), and co-author, with Robert Frodeman, of *Socrates Tenured: The Institutions of 21st-Century Philosophy* (Rowman & Littlefield, 2016).



**Evelyn Brister** is Associate Professor in the Philosophy Department at Rochester Institute of Technology. She has a PhD in Philosophy (2002) and a MS in Environmental Science (2012). Her research in philosophy of science is on interdisciplinary collaboration and on the use of values to identify priorities in forest management. She works to support public philosophers as a member of the APA Committee on Public Philosophy and as an officer of the Public Philosophy Network. She became aware of the opportunities presented by philosophical fieldwork through participation in community-based ecological restoration projects.

**John Broome** is Emeritus White's Professor of Moral Philosophy at the University of Oxford. He has a PhD in Economics and previously worked as a Professor of Economics, most recently at the University of Bristol. He works on normativity and rationality, and also on the ethics of climate change. He was a Lead Author of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. His most recent books are *Rationality Through Reasoning* (Wiley-Blackwell, 2013) and *Climate Matters: Ethics in a Warming World* (W. W. Norton, 2012).

**Julia R.S. Bursten** is an Assistant Professor of Philosophy at the University of Kentucky and former co-chair of the Philosophy of Science Association Women's Caucus. Her research concerns questions of modeling and scale in nanoscience and other physical sciences. From 2011 to 2015 she served as the resident philosopher in the Millstone Nanosynthesis Laboratory at the University of Pittsburgh.

**Elizabeth Edenberg** is Senior Ethicist and Assistant Research Professor at Georgetown University's Ethics Lab. Her research investigates ways to develop mutual respect in the context of deep moral and political disagreements. She also works on broader ethical and political challenges posed by emerging technologies. Drawing on this research, she has led Ethics Lab's translational ethics work with the Smithsonian Institutes, the Inter-American Development Bank's Fair Artificial Intelligence Project, and Harvard's Privacy Tools Project. She holds a PhD in Philosophy.

**Robert Frodeman** (PhD, Philosophy, MS Geology) is now an independent thinker in Hoback, Wyoming. His research ranges across environmental philosophy and public policy, the philosophy of science and technology, and the philosophy of interdisciplinarity. He is the author and/or editor of 16 books, including the *Oxford Handbook of Interdisciplinarity* (Oxford University Press, 2010 and 2017), *Socrates Tenured: The Institutions of 21st-Century Philosophy* (with Adam Briggles, Rowman & Littlefield, 2016), and *Transhumanism, Nature, and the Ends of Science* (Routledge, 2019). He consulted for the US Geological



## **x** Contributors

Survey from 1993 to 2001, worked with community groups in Durango, Colorado, and consulted for the European Commission.

**Sara Goering** is an Associate Professor in the Philosophy Department at the University of Washington, Core Faculty in the Program on Ethics, and Core Faculty in the Disability Studies Program. Her research areas include bioethics, neuroethics, philosophy of disability and feminist philosophy. With Eran Klein, she leads the ethics thrust of the University of Washington Center for Neurotechnology, an NSF-funded Engineering Research Center that brings together neuroscientists, electrical engineers and bioengineers, neurosurgeons, rehabilitation medicine specialists, and philosophers for the transdisciplinary project of creating brain–computer interfaces designed with ethics considerations in mind.

**Bernard Goffinet** is Professor in the Department of Ecology and Evolutionary Biology at the University of Connecticut. He has a PhD in Botany (1997), and his research focuses on the evolution of bryophytes (e.g., mosses) and lichen-forming fungi. Through his teaching and outreach activities he has sought to address widespread plant blindness and, in particular, the transparency of non-vascular plants. He has been actively engaged in the biocultural conservation course led by Dr. Ricardo Rozzi in subantarctic Chile and involved in developing the “Ecotourism with a Hand Lens” program focused on discovery of the miniature forests of the Cape Horn region.

**Jonathan Healey** is a Designer at Georgetown University, serving as an Assistant Professor of Practice and Assistant Director of Ethics Lab. He holds a Master of Architecture (2008) from the University of Maryland. His pedagogical and professional work focuses on the capacity of design methods to support transdisciplinary engagement, particularly in service to emerging issues of complex moral significance. Prior to joining Ethics Lab, he developed digital products concerning identity and access for the commercial security industry and was a member of the faculty at the Corcoran College of Art + Design.

**J. Britt Holbrook** (PhD, Philosophy, 2004) is Assistant Professor in the Department of Humanities at New Jersey Institute of Technology. His research combines topics relevant to contemporary science policy (open science, open access, altmetrics, broader impacts requirements for grants) and of perennial concern (ethics education, peer review, academic freedom, the role of the university in society). He served on the American Association for the Advancement of Science (AAAS) Committee on Scientific Freedom and Responsibility from 2012 to 2018 and as a member of the European Commission Expert Group on Indicators for Open Science in 2019. His research also continues to receive funding from the US National Science Foundation.



**Rachelle Hollander** has retired from the National Academy of Engineering (NAE), where she directed the NAE Online Ethics Center (OEC), [www.onlineethics.org](http://www.onlineethics.org), and helped develop the Integrated Network for Social Sustainability. For many years she directed the science and engineering ethics activities at the US National Science Foundation (NSF). She has written articles on applied ethics and on science policy and citizen participation. She is a Fellow of the American Association for the Advancement of Science (AAAS) and, in 2006, received the Olmsted Award for innovative contributions to the liberal arts within engineering education from the American Society of Engineering Education (ASEE) Liberal Education Division.

**Don Howard** is a Professor of Philosophy at the University of Notre Dame and the former director of Notre Dame's Reilly Center for Science, Technology, and Values. His main interests are the history and philosophy of modern physics, the history of the philosophy of science, and the ethics of science and technology. His work on technology ethics has led to extensive collaborations with engineering colleagues over a broad range of topics, from ethical issues in human–robot interactions research and the ethics of emerging weapons technologies to ethics programming for autonomous systems and the ethics of responsible technology innovation and entrepreneurship.

**Jane Johnson** is a Lecturer in the Department of Philosophy at Macquarie University and a Research Fellow at the Centre for Research Excellence in Emerging Infectious Diseases at the University of Sydney. She has a PhD in Philosophy and an Honours Degree in Science (Architecture). Her research investigates ethical questions in science and in medicine, specifically around surgical innovation, animals in research, and emerging infectious diseases. Jane was attracted to field philosophy by her desire to make a positive difference in applied contexts and to help deliver so-called 'real-world' impacts.

**Jozef Keulartz** is Emeritus Professor of Environmental Philosophy at the Radboud University Nijmegen. He has published extensively in different areas of science and technology studies, social and political philosophy, bioethics, environmental ethics, and nature policy. His books include *Die verkehrte Welt des Jürgen Habermas* (Junius Verlag, 1995) and *Struggle for Nature: A Critique of Radical Ecology* (Routledge, 1998). He is also co-editor of several books, including *Environmental Aesthetics: Crossing Divides and Breaking Ground* (Fordham University Press, 2014), *Old World and New World Perspectives in Environmental Philosophy* (Springer, 2014), and *Animal Ethics in the Age of Humans* (Springer, 2016).

**Eran Klein** is an Assistant Professor in the Department of Neurology at the Oregon Health and Science University and Affiliate Professor in the Department of Philosophy at the University of Washington (UW). He has a MD



(2004) and a PhD in Philosophy (2002) from Georgetown University. He co-leads the Ethics Thrust within the Center for Neurotechnology (CNT) at UW. His research has focused on philosophical and ethical issues raised by neurotechnology and the development of methods and infrastructure to facilitate philosophical fieldwork by philosophy students in emerging technology.

**María Teresa La Valle** is Professor of Applied Ethics at the National University Tres de Febrero, Buenos Aires and a member of the Argentine Society of Philosophical Analysis (SADAF), where she heads a research group. Her research ranges across environmental philosophy and applied ethics with a special focus on issues of international justice. She participates in interdisciplinary work in field environmental philosophy with professors from the Universidad de Magallanes, Chile and the University of North Texas.

**Daniel Little** is Professor of Philosophy at the University of Michigan-Dearborn and Professor of Sociology and Public Policy at the University of Michigan-Ann Arbor. He received his BS and BA degrees from the University of Illinois in 1971 and his PhD in Philosophy in 1977 from Harvard University. His most recent book is *New Directions in the Philosophy of Social Science* (Rowman & Littlefield, 2016). Other books include *New Contributions to the Philosophy of History* (Springer, 2010) and *The Paradox of Wealth and Poverty* (Westview Press, 2003). He served as Chancellor of the University of Michigan-Dearborn from 2000 to 2018.

**Margaret Little** (PhD) is Professor of Philosophy and Senior Research Scholar at the Kennedy Institute of Ethics and Director of Ethics Lab at Georgetown University.

**Sydney Luken** is a designer at Georgetown University's Ethics Lab. She has an MA in Interior Design (2013) and a BA in Graphic Design (2008). Her professional interests include the creation of transformative public experiences through design in all its forms.

**Francisca Massardo** (PhD, Botany, MSc Botany) is an Associate Professor at the Universidad de Magallanes (UMAG), Chile and Associate Researcher at the Institute of Ecology and Biodiversity (IEB) in Chile. She is the Director of the Omora Ethnobotanical Park in Southern Chile and President of the Sub-Antarctic Cape Horn Center Foundation. She works in biocultural conservation and is the Chief Editor of the book series on "Sub-Antarctic Ecotourism" jointly published by University of North Texas Press and Ediciones UMAG.

**Chet McLeskey** holds a PhD in Philosophy and works primarily on bioethics, research ethics, virtue theory, and the epistemic and psychological aspects of ethical decision making. Currently, Chet works in the Center for Interdisciplinarity



at Michigan State University, where he is developing Responsible Conduct of Research (RCR) training workshops using a virtue-theoretic framework. Using the Toolbox Dialogue Initiative's model, the workshops explore the notion of scholarly virtue in humanities and arts disciplines and how developing a character and culture that promotes and instills these virtues aids the achievement of excellence in scholarship and teaching.

**Ryan Muldoon** is an Associate Professor in the Philosophy Department at the University at Buffalo. He has a PhD in Philosophy (2009) from the University of Pennsylvania. His research focuses on how political, cultural, and scientific communities can and should respond to increasing diversity. He is the author of *Social Contract Theory for a Diverse World: Beyond Tolerance* (Routledge, 2016). In addition to his academic work, he consults for UNICEF, The World Bank, and other public agencies, usually in relation to behavior change initiatives and rights protection.

**Merel Noorman** is an Assistant Professor in AI, Robotics and Science and Technology Studies at the Tilburg Institute for Law, Technology, and Society at the Tilburg Law School of Tilburg University, The Netherlands. She studied artificial intelligence (AI) and science and technology studies (STS) at the University of Amsterdam and Edinburgh University and received her PhD in Philosophy from Maastricht University. In her research she explores the ethical and social aspects of AI and robotics, with a particular focus on the distribution of responsibility around complex intelligent technologies. She combines philosophical fieldwork with conceptual analyses to inform debates on the governance of AI, robotics, and other kinds of sophisticated computer technologies.

**Peg O'Connor** is Professor of Philosophy at Gustavus Adolphus College. Her early research was at the intersections of metaethics, normative ethics, and Wittgenstein. She is the author of *Oppression and Responsibility* (Penn State, 2002) and *Morality and Our Complicated Form of Life* (Penn State, 2008). Her field philosophy focuses on addiction, which she understands to be as much a social, political, economic, and moral concern as a medical one. Her work takes her to treatment centers, community education programs, and drug courts. Her most recent book is *Life on the Rocks: Finding Meaning in Addiction and Recovery* (Central Recovery Press, 2016).

**Michael O'Rourke** is Professor of Philosophy and faculty in AgBioResearch and Environmental Science and Policy at Michigan State University (MSU). He is Director of the MSU Center for Interdisciplinarity (<http://c4i.msu.edu/>) and Director of the Toolbox Dialogue Initiative, an NSF-sponsored research initiative that investigates philosophical approaches to facilitating interdisciplinary research and implements them across a broad range of contexts



(<http://tdi.msu.edu/>). His research interests include epistemology, communication and epistemic integration in collaborative, cross-disciplinary research, and linguistic communication between intelligent agents.

**Marisa Rinkus** is a Postdoctoral Research Associate with the Center for Interdisciplinarity (C4I) at Michigan State University. Her work with C4I involves facilitating Toolbox Dialogue Initiative (TDI) workshops and studying the impact of philosophically structured dialogue on cross-disciplinary communication and collaboration. She holds a PhD in Fisheries and Wildlife with a focus on Human Dimensions and works to apply insights from the TDI process to multi-stakeholder engagement in conservation.

**Ricardo Rozzi** (PhD, MSc Ecology, MA Philosophy) is a Professor at the Department of Philosophy and Religion, University of North Texas; Professor at the University of Magallanes (Chile); and President of and Principal Investigator at the Institute of Ecology and Biodiversity (IEB-Chile). Based in these institutions, he directs the Sub-Antarctic Biocultural Conservation Program (USA and Chile). His work focuses on the integration of environmental sciences and ethics into biocultural conservation. He is the Editor-in-Chief of the Springer book series, “Ecology and Ethics”, Vice-President of the Center for Environmental Philosophy, and represents Latin America in the International Society of Environmental Ethics.

**Shaun Russell** (PhD, Plant Ecology, MSc Plant Taxonomy) is an environmental scientist and Director of the Treborth Botanic Garden, Bangor University, UK. Due to his expertise in biodiversity conservation and sustainable tourism, Dr. Russell is an international advisor for many countries in Latino America, Africa, and Asia and has been a principal researcher in projects associated with the creation of the Cape Horn Biosphere Reserve, Chile and the implementation of ecotourism with a hand-lens. He is a founding member and international advisor of the Sub-Antarctic Cape Horn Center Foundation and holds a Doctor Honoris Causa from the University of Magallanes, Chile.

**Sahotra Sarkar** is Professor in the Departments of Integrative Biology and Philosophy at the University of Texas at Austin (USA). His work spans conservation science, disease epidemiology, formal epistemology, and the philosophy of science. Along with Chris Margules, he is co-author of *Systematic Conservation Planning* (Cambridge University Press, 2007) and the author of five other books in environmental philosophy and the philosophy of biology. He is the editor of 20 works and author of over 200 papers spanning philosophy and science. He is currently completing a book on the concept of biodiversity.



**Naomi Scheman** is a feminist philosopher currently living in Boston. She is Professor Emerita of Philosophy and of Gender, Women, & Sexuality Studies at the University of Minnesota, where she taught for 37 years and engaged as an epistemologist in a range of social justice initiatives. Her work in the politics of epistemology has been collected in two volumes, *Engenderings: Constructions of Knowledge, Authority, and Privilege* (Routledge, 1993) and *Shifting Ground: Knowledge and Reality, Trust and Trustworthiness* (Oxford University Press, 2011).

**Tsjalling Swierstra** (PhD Philosophy, MS Philosophy, MS Political Science) is head of the Philosophy Department at the University of Maastricht and adjunct professor at the Norwegian University of Science and Technology (NTNU) in Trondheim, Norway. He has published widely on the ethics of emerging technologies and is now working on a book on the mutual shaping of technology and morality (TechnoMoral Change). He is a member of the Dutch Science Foundation Board, coordinating the Dutch Responsible Research & Innovation programs; he co-founded *The Journal for Responsible Innovation*. He has worked with engineers and citizens on numerous deliberative projects on emerging technologies such as genomics, nanotechnology, cyber-physical systems, and smart cities.

**Paul B. Thompson** received his PhD in Philosophy from Stony Brook University for a dissertation on the epistemology and political philosophy of risk analysis. His work on risk has emphasized agricultural biotechnology as well as the impact of technology on food, animals, and sustainability. He has served, in an advisory capacity, the US National Research Council, Genome Canada, the Food and Agricultural Organization (FAO) of the United Nations as well as the American Humane Association, the United Egg Producers and other farm groups. He holds the W.K. Kellogg Chair in Agricultural, Food and Community Ethics at Michigan State University.

**Nancy Tuana** is the DuPont/Class of 1949 Professor of Philosophy and Women's, Gender, and Sexuality Studies at Pennsylvania State University. She is a philosopher of science and feminist science studies theorist who specializes in issues of ethics and science. Her research includes coupled ethical–epistemic issues in the field of climate science. In this domain, she is Co-PI of the NSF Sustainability Research Network on Sustainable Climate Risk Management and Co-PI of the NSF Visualizing Forest Futures team. She is also engaged in research on justice issues in the context of climate change and is author of a number of articles on intersectional approaches to justice and climate change.

**Stephanie Vasko** is the Managing Director for the Center for Interdisciplinarity at Michigan State University. She has a PhD in Chemistry & Nanotechnology (2012) and an MS in Chemistry (2009). She builds community and



collaborative capacity among academic, community, and blended academic/community research teams by developing and delivering philosophically-informed team based workshops as part of the Toolbox Dialogue Initiative. She currently serves on the Mayor's Arts and Culture Commission in Lansing, MI and was former American Association for the Advancement of Science Community Engagement Fellow.



# PREFACE

Changes have come to the oldest of disciplines. Philosophers are inhabiting unaccustomed places: they serve on committees at the National Academy of Sciences; publish in *Nature*; work as program officers at the National Science Foundation and the European Commission; foster community efforts to control the fracking industry in Denton, Texas; help create a community-based feminist anti-violence organization; build internal capacity at UNICEF for diagnosing and addressing unhealthy social norms; and design democratic digital technologies for the governance of cities. They do not just happen to be philosophers who serve in these capacities as a sideline to their real tasks; they occupy these spaces *as* philosophers, creating new possibilities for philosophic work.

*A Guide to Field Philosophy* offers a first mapping of this rapidly expanding terrain. These essays chart a philosophical practice that raises new sets of theoretical challenges. This is a new way of doing philosophy—albeit kin to many older efforts—ready to answer the charge that philosophy is not relevant to the real work of twenty-first-century society.



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# 1

## DIGGING, SOWING, BUILDING

### Philosophy as Activity

*Evelyn Brister and Robert Frodeman*

Philosophy investigates the fundamental nature of reality, knowledge, beauty, and human purpose. But what do philosophers *do*? We teach our classes and give talks at conferences. For the most part, though, we work alone. We write articles for philosophy journals, read the books our peers write, and sometimes we write a book ourselves. We work in classrooms, in our offices and studies, and perhaps at the local coffee shop. We enjoy our independence, especially when we can find time to think and write away from the world's commotion.

But philosophy can be more than a solitary, contemplative exercise. It also engages the world. Field philosophy, the topic of this collection, expands the range of philosophical activity. It reaches beyond the classroom and the study to directly respond to societal needs. By taking philosophy out into the field, field philosophers apply classical theories and analytic skills in hospitals and labs, offices and community centers, cornfields and wilderness areas. They employ a variety of tools to achieve their goals: sticky notes, computer models, games, and even a hand lens. Working in settings where pressing decisions hang in the balance, and with collaborators from all walks of life, field philosophers identify the philosophical aspects of problems as they arise in messy, pressing, real-world settings. Field philosophers make a difference: they sometimes change the world.

### The Motivation for Field Philosophy

In 1975, a number of prominent philosophers, including J. J. Smart, J. O. Wisdom, Herbert Marcuse and others, wrote essays responding to the question “What is Philosophy?”. A common criticism shared across these essays was that philosophy, at that time, was “not *relevant* to human problems; that philosophers



have fragmented their subject into a series of technical problems which are unrelated to the human crisis of the day and which are, apparently, even unrelated to each other” (Bontempo and Odell 1975, 2).

Criticisms of philosophers as unworldly and therefore useless to society reach back to Thales and the Milkmaid. Or as Adeimantus puts it to Socrates,

all those who take up philosophy—not those who merely dabble in it while still young in order to complete their upbringing, and then drop it, but those who continue in it for a longer time—the majority become cranks, not to say completely bad, while the ones who seem best are rendered useless to the city because of the pursuit you recommend.

*(The Republic, Book VI, 487c)*

The view that philosophical study cultivates irrelevance persists even in the face of evidence of its impact on social policy. Philosophical ideas have been taken up in frameworks for human rights, have become part of choice architecture in risk assessment, and have influenced thinking about race and gender as these ideas play out in law, medicine, and culture.

Philosophers and society often worry about relevance; what’s required is a volume providing evidence and practical guidance for doing work that is directly engaged in problem-solving and that explicitly demonstrates its real-world effects. We call this field philosophy: it treats the question of how to achieve relevance as not only a practical but also a philosophical issue, asking what counts as relevance, and exploring the nature of philosophical impacts on society.

Across its history, philosophy has clearly shaped the world. But the pace of this work is usually quite deliberate, perhaps at times too much so. Philosophers typically influence other academic fields and the world at large via a ‘trickle-down’ model, publishing their thoughts in philosophy books and journals in the hope they will eventually be noticed by practitioners and decision-makers. New concepts are worked out in debates internal to the philosophical community. This is important work, and it must continue, but there is also a need for more direct interventions. This is what distinguishes field philosophy.

Moreover, when philosophers engage directly with policymakers or other communities, their efforts are often not appreciated as valuable contributions to philosophical inquiry, even by other philosophers. This is not true in other disciplines, where, for instance, psychologists are engaged in the design of disciplinary policies in public schools, economists work with policymakers to predict public debt, and ecologists provide input to fisheries management. Their peers appreciate the value of these efforts. A partial explanation for the systematic ignorance of philosophers’ contributions to social problems lies in the fact that there is no shared way of describing this work, no shared understanding of the impacts achieved, and no shared sense of the meta-philosophical questions it raises about the nature of philosophical inquiry.



In response, this volume describes a philosophical practice that is directly engaged in our common lives. These essays highlight nearly two dozen cases where philosophy has been directly relevant to solving social and technological problems, and they chart a course toward building institutional support for a wide range of engaged research projects. They provide suggestions for how to entwine philosophical research with the concerns of different collaborators in the field, where the ‘field’ is understood expansively to include any complex setting where questions of knowledge and values arise. Finally, they raise the challenge of supporting this work more fully while theorizing about how to pursue it more effectively.

## A Philosophical Practice

As a term of art, field philosophy is modeled on the idea of field *science*, as it is practiced in ecology, geology, anthropology, and other fields. Field researchers collect and interpret data from the natural and social worlds in all their complexity. Philosophical field research is similar to fieldwork in these areas in its distance from controlled experimentation and isolated theorizing. In a laboratory, researchers create artificial conditions to produce and evaluate phenomena in isolation from the complete network of natural causal influences. This has its advantages: it often results in law-like generalizations. But as Nancy Cartwright (1983) noted, this type of knowledge stands at a remove from the world we inhabit. Controlled experimentation is central to the sciences, but fieldwork is its necessary complement, especially for complex systems and wicked problems. In philosophy, too, field research provides novel insights that bounce philosophy out of the intellectual ruts that can be notched when philosophers lose sight of how theory connects with real-world problems.

Because field philosophy theorizes from real situations, it avoids some of the pitfalls of ideal theory and of philosophical thought experiments based on intuition. Ideal theory and thought experiment both have their place in philosophy, but they have also been criticized because they fail to take into account the complexity and constraints of real-life social, political, and physical systems. Charles Mills (2005) argues that political theory too often relies on idealization, to the point of marginalizing and ignoring urgent social concerns that lie outside the terms of the ideal, such as racism and other forms of oppression. By doing so, ideal theories tacitly support the ideologies of oppressive social systems. Philosophical thought experiments have been criticized on similar grounds: arm-chair theorizing overlooks the effects social systems have on the generation of philosophical intuitions (Schwartzman 2012). Thought experiments are useful for generating cases to consider, but they have less epistemic value than empirical examinations of existing systems (Häggqvist 2009). Examining philosophical issues in their natural habitat yields better philosophy and can have concrete results in the real world.



There are, however, limitations to the analogy with geological fieldwork: geologists make and interpret observations, but they do not make the rocks and rarely interfere with geological processes. There are also elements of fieldwork that are unique to philosophy and the humanities: we do not just observe in the field—we bring our understanding and techniques for others to *use*. Thus, field philosophy shares an outlook and set of problems with anthropological fieldwork. In the early twentieth century, Bronislaw Malinowski urged anthropologists to step “off the veranda” and to participate in the cultures they studied (Harrison 2014). Like participant observers in anthropology, field philosophers take on obligations to the people and groups they collaborate with. In pursuing fieldwork, philosophers give up a degree of autonomy as they merge their research goals with the goals of their collaborators. Participant methods have raised difficult questions of objectivity and ethics for anthropologists—questions that field philosophers also find themselves confronting.

As a practice, philosophical fieldwork does not depend on a particular set of methods. It makes strategic use of a wide range of philosophical methods from phenomenology to computer modeling, following the logic internal to the problem at hand rather than applying a preformed method. This means that field philosophers make generous use of interpretation. Like a geologist interpreting the ancient historical events that led to the formation of a rock outcrop, field philosophers maintain an awareness of their situatedness in an unfolding problem-solving episode. Field philosophers embed themselves in natural contexts, clarifying goals and values and expanding the decision space for complex problems.

For field philosophy, Marx’s comment in his *Theses on Feuerbach* remains a touchstone: “Philosophers have only interpreted the world, in various ways; the point is to change it.”

### **The Character of Field Philosophy**

Field philosophy, then, is improvisational in nature; it has no standard methodology. As these essays demonstrate, field researchers respond to opportunities as they appear, embed themselves in live situations, and remain flexible in the face of changing conditions of time, money, and interest. That said, it is possible to identify a set of markers that distinguish the field philosopher’s work. It involves:

- Working as a member of a team and being committed to collaboratively addressing a real-world problem through ongoing participation;
- Responding to the specifics of the actual situation rather than approaching the problem with a theoretical abstraction;
- Adjusting standards of rigor to the limitations of partners’ time, interests, and resources;



- Counting as results creations other than a philosophical publication, e.g., a technological product, a policy, or a reformed practice; and
- Evaluating success or failure first from the perspective of collaborative partners.

These characteristics of field philosophy are tied to making our research relevant outside the walls of academia. They challenge conventions about how philosophers work (on teams rather than alone), who our audience is (communities outside the profession rather than our peers), how we approach inquiry (from a problem rather than from a theory), how we evaluate our work, and what we aim to produce.

The customary outcome of research in philosophy is a single-authored monograph, book chapter, or peer-reviewed article—research that typically adds to an ongoing theoretical debate in the discipline. It is specialized research produced for fellow specialists. We call this model *disciplinary* philosophy (Fro-deman and Briggie 2016). Field philosophy is distinguished from normal disciplinary philosophy by its primary audience: people outside the discipline who have a distinctive need for philosophical assistance. This change in audience redirects how, where, when, and what we aim to produce through our research activities. Whereas the rules that govern academic research production are reasonably clear, fieldwork requires that philosophers be flexible in order to learn new things, communicate differently, and identify situations where our various forms of expertise can be useful. It also requires that we develop new ways to evaluate philosophical impact. Fieldwork is valuable, but it is also time-consuming and prioritizes creations that are more difficult to enumerate than journal articles.

In some disciplines, researchers go into the field to observe the natural world. Fieldwork in philosophy is different from this because we are not separate from our object of study. As our contributors demonstrate, field philosophers do not simply provide theoretical descriptions of the systems they encounter. They engage with collaborators in order to study—and affect—ethics, justice, language, aesthetics, or some other philosophical concern that is embedded in a practical situation. It is this hands-on engagement that most clearly sets field philosophy apart from other forms of philosophical work. Fieldwork aims to make something other than a philosophical research article; its primary goal is to work with others to craft a new policy, practice, community, or object. It presents philosophical resources for the use of others while allowing us to test the utility of philosophical conceptions and tools. Field philosophy, demonstrates that philosophy is not ‘merely academic.’

When the audience for our work shifts from a disciplinary community to the community at large, the space and time in which we work also shift. Philosophical fieldwork is distinguished by its location—occurring at specific sites, usually



outside the walls of academia. And it is distinguished by its break from academic timelines. In most cases, teaching occurs by the rhythms of a 10-week quarter or 15-week semester, and research, with the exception of the tenure clock, operates within a utopian time. In the wider world people constantly operate under constraints; it's just the nature of things. Rather than treating these conditions as a burden, field philosophers see them as an opportunity. Like the rules of a game or the structure of a haiku, constraints become opportunities for creativity. The report is due at the end of the month: can you say something useful by then? You have one brief opportunity to make your point: can you make it ring? The changing nature of these limitations becomes a source of provocation and intellectual excitement.

Fieldwork operates at different speeds and tempos depending on purpose and location. When a field philosopher is busiest may depend on the seasons or on a court calendar. It may require years of building personal connections, an investment that may be upended by an election or a change in project management. Agreeing to collaborate on a project in the field is to take on a commitment that must be maintained through thick and thin and changes in plans. Field philosophy, then, is distinctive in terms of both space and time, venturing into new spaces and responding to faster and more direct cultural demands while developing relationships committed to producing change.

## Collaboration

We have emphasized that fieldwork has a different rhythm than disciplinary work and that it is done in different places—at one or another site, and in any case away from the philosopher's armchair. The contributors to this volume have worked in a variety of settings. The field may be literal (e.g., Paul Thompson's fieldwork in Chapter 19 is with agricultural researchers) or it could be with policymakers or a community group (e.g., Ryan Muldoon's work in Chapter 6 with the World Bank, Peg O'Connor's work in Chapter 21 with addicts and judges). It could even be in a scientific laboratory or in the university as a whole (see Chapter 3 by Julia Bursten and Chapter 11 by Daniel Little). What all philosophical fieldwork has in common, though, is that it is collaborative with people outside the discipline of philosophy.

Collaboration has been increasing in all academic fields in recent decades, but it has increased less in philosophy than in the sciences: philosophers still tend to write articles and books on their own. How much do philosophers collaborate? Estimates for co-authored publications in philosophy range from 2 percent to 11 percent (Cronin et al. 2003; Larivière et al. 2006), and we can assume that most of these are not interdisciplinary or transdisciplinary collaborations. Though the rate has been growing and is higher in some specialties than others, it is clear that philosophers collaborate less than both natural scientists (where the rate of article co-authorship is over 90 percent) and social scientists



(where the rate of article co-authorship is over 50 percent). Andrew Higgins and Alexis Dyschkant (2014) argue that the lack of collaboration, and particularly of interdisciplinary collaboration, is problematic for philosophy, and they have presented a plausible connection between the intellectual isolation of philosophy from other fields and several ways in which philosophy could be seen as failing to progress or to make itself relevant to society. Collaboration expands philosophers' understanding of theories, methods, and problems in other disciplines, and it also opens up opportunities to contribute productive solutions to social and technical problems. Collaborations across disciplinary boundaries may lead philosophers to sync the concepts we develop with the concepts already in use in practical and policy contexts. Communication across the barriers that arise through the process of disciplinary specialization is therefore valuable both to philosophical debate and to researchers in other fields.

But not all interdisciplinary research performed by philosophers is field philosophy. If a philosopher is consulted in the context of others' research, this may be a straightforward application of a conceptual framework to a case—that is, applied philosophy. Field philosophy differs from applied philosophy in that it is characterized by collaborative *interactions* that affect our partners' projects. For example, if a philosopher contributes to interdisciplinary research by writing an article with a historian of science about Kuhn's understanding of theory change, it is within the bounds and expectations of disciplinary philosophy. But if a philosopher spends months or years embedded in a chemistry lab and is able to critique an experimental set-up on the grounds that the causal model it invokes has internal inconsistencies, the product is not a journal article that slots philosophy in at the appropriate places. The effect is of another type: it motivates a redesign of the experiment and, potentially, the causal model itself. This qualifies as field philosophy.

A number of the field philosophers in this volume have collaborated with interdisciplinary academic research teams. Since much of modern technology emerges from university research, this is an important location for field philosophy. But philosophical fieldwork mostly takes place outside of the university, when philosophers collaborate with policymakers and community groups. Such collaborations may occur at an international scale, as when John Broome (Chapter 7) worked on the publication of the 2014 Report of the Intergovernmental Panel on Climate Change. Or they may operate at a more local level, as when Roksana Alavi (Chapter 18) served on a committee on human trafficking appointed by the governor of the state of Oklahoma, spending much of her time with faith-based community groups in the city where she lives.

There is a trend right now to call philosophical research with implications for policy and practice 'socially relevant.' Field philosophy builds on socially-relevant research in philosophy, but then takes the additional step of engaging directly with the people who can benefit. Field philosophers are not satisfied with merely writing about how a philosophical concept or theory might be



relevant to social practice; they also build connections with practitioners and policymakers. More often than not, direct involvement leads to modifications of philosophical theory, as field philosophers work to bridge the gap between the ideal and the real.

A noteworthy feature of the collaborations described in this book is that unlike those between philosophers on a disciplinary journal article, the collaborative work of field philosophers involves face-to-face meetings and activities that take place in real time rather than asynchronously across email in the pages of a journal. It is an essential change in how philosophers view the practice of philosophy, a change that revives the ancient debate between speech and writing. Outside the time we spend in the classroom, philosophical work primarily consists in shaping the written word. Even ‘talks’ at conferences traditionally involve reading a written paper aloud. In contrast, field philosophy puts its emphasis on oral performance.

Field philosophy is sometimes seen as just another term for applied philosophy. But applied philosophy *writes* about real world problems, while field philosophy conducts its work primarily via *conversation*. Field philosophers write, of course—often, memos and reports—and they bring back what they learn to the philosophical community through disciplinary writing or essays such as those in this volume. But field philosophy gives priority to practicing philosophy at the moment it comes up in collaborative settings: raising questions, responding to queries, and expanding the moral imagination of people as they are engaged in problem-solving. The goal is to influence events on the fly. Field philosophy is thinking put into action. The point is to help inform the ideas that are shaping events, rather than to critically evaluate them after the fact.

This shift toward the oral evokes ancient debates concerning the advantages and disadvantages of different modes of communicating philosophy. Socrates famously refused to write; in the *Phaedrus* he emphasized the dangers of texts and the virtues of living speech. Plato, of course, was the author of the *Phaedrus*, where Socrates makes these criticisms; Plato responded by inventing a manner of writing (the dialogues) where many of the virtues and protections of speech were preserved. But since Aristotle—and with the loss of his dialogues—philosophy has trended toward abstract argument. Writing journal-length articles has many advantages in terms of the care, precision, and extent of thinking. But writing, and particularly academic writing, tends to place philosophy at a distance from the daily labors where social problems are confronted and solved. It is critical rather than participatory. Conversely, oral philosophizing has an immediacy of impact—while also raising questions of permanence and, by extension, of how field philosophers can document and get credit for the work that they do. The ephemeral nature of speech raises distinctive challenges in documenting impact, a problem we return to in the Conclusion.



## Philosophical Contributions

Field philosophers are in demand because various actors across society find themselves confronted by philosophical issues. Some of what the field philosopher brings is simply making the virtues of philosophy available to the wider world. Perhaps the most notable examples involve the many requests for help with the ethics and values dimensions of technoscientific problems. These calls for assistance have grown over time: the first funding of the history and philosophy of science at the National Science Foundation goes back to the late 1950s. A well-known example from the late twentieth century was the announcement by James D. Watson, co-discoverer of the molecular structure of DNA, that the Human Genome Project would devote 3–5 percent of its budget to questions regarding the ethical, legal, and social implications of this research. By the time of its conclusion in 2003 it constituted the world's largest bioethics project, totaling more than 100 million dollars in funding (Gannett 2008).

Motivated by similar concerns, in 1997 the US National Science Foundation revised its peer (or “merit”) review criteria so that it consisted of two principles: intellectual merit and broader impact. “Broader impact” covers a wide expanse, including technology transfer and economic effects; but it also represents official recognition that philosophical concerns are intrinsic to scientific work today (Holbrook 2012). Over time the name for such efforts has changed—the European Commission now frames these concerns in terms of Responsible Research and Innovation—but all of these efforts are invitations for philosophers to work with the Science, Technology, Engineering, and Mathematics (STEM) community.

Many contemporary social, technoscientific, and environmental problems are so complex and ill-structured that they qualify as ‘wicked.’ There have been calls to address such problems through research that is interdisciplinary and transdisciplinary in nature, integrating academic researchers with practitioners and community groups (Pohl et al. 2017). Because such problems are not amenable to disciplinary solutions, they require collaborative learning and knowledge integration that no single disciplinary approach is capable of. In such cases philosophers can serve two roles—addressing the specifically philosophical issues, and assisting in the role of integrating across the disciplines (Thompson and Whyte 2012).

What can philosophers contribute, specifically, to solving these problems? Philosophical involvement in fieldwork is very different from classroom lectures on Hegel or the Allegory of the Cave. Because of the interactive nature of fieldwork, field philosophy has two outcomes: it helps the philosophical community understand the implications of real-world problematic situations in a way that shapes philosophical discourse, and it facilitates our collaborators’ understanding of the philosophical dimensions of their problems so as to contribute to more just and effective solutions.



These essays demonstrate the many ways that field philosophers contribute to collaborative projects. Sometimes the contribution involves using the skills and methods we normally practice in teaching and research: public speaking, designing lectures and slideshows, writing reports, evaluating evidence, crafting persuasive rhetoric, and organizing events. But what is distinctively *philosophical* about the work that field philosophers do? What can philosophers contribute that is distinctive from the contribution of, say, an engineer or a social worker?

The essays that follow embody many types of roles and contributions, but three stand out: subject matter expertise, the prompting of a productively critical stance, and the widening of discussion. All three of these are promoted via the posing of questions. Asking questions is not unique to philosophers, but it is a skill that philosophers practice in a deliberate and distinctive way. Our field has developed techniques for asking questions that uncover unnoticed assumptions, reveal conflicts of interest, expose inconsistent goals, and demonstrate where understanding is lacking or options have been overlooked. Depending on the setting, we call our question-asking conceptual analysis, normative analysis, the Socratic method, or facilitating discussion.

Like all philosophers, field philosophers draw on subject matter expertise. For instance, they may point out where decision-making relies on considering consequences versus identifying and applying principles. They may point out how, in particular situations, a decision takes the value of the non-human world into account—or not—or increases the options available to future generations. In the essays that follow, Sahotra Sarkar (Chapter 22) was invited to participate in a conservation planning exercise on the basis of his research team's development of computer modeling tools, and Tsjalling Swierstra and Merel Noorman (Chapter 16) were invited to participate in the design of energy distribution systems on the basis of their expertise with privacy. But in these cases of field philosophy, the contributions extended beyond providing a simple consultation on the application of established philosophical concepts. Significantly, in helping others it is rarely necessary to lay out all the theoretical machinery that is involved, for instance, in a conception of justice as fairness—any more than we would expect others we work with to explain the interior workings of a computer program. Field philosophy and disciplinary philosophy are therefore complementary, and philosophical inquiry advances in both kinds of contexts.

Philosophers are often drawn into a project because they possess specialized subject matter knowledge that contributes to partners' goals, but they and their partners often find that the greater part of philosophers' contributions consists of expanding possibilities and widening epistemic and moral horizons. One of the distinctive modes of field philosophy's operation is through raising issues that have slipped the attention of others. Quite often, the key contribution on a collaborative project is asking critical questions that instigate a shift in perspective and, consequently, a change in project expectations, processes, or goals.



In doing fieldwork, philosophers may find that they offer an outside perspective on a group's efforts, and are able to show what criticisms the group should anticipate and respond to. Being identified as the group's outsider-within can allow field philosophers to critique the team in such a way that, if it came from others, would be perceived as betraying group loyalty.

By operating at a general level, philosophers are often able to make connections between people who otherwise approach a problem from disparate areas and with dissimilar vocabularies. Philosophers can play a facilitative role. As Francesca Bordogna (2008, 11) describes William James' conception of the role of philosophers, a main task is "the facilitating of exchanges and encounters among people who traveled along different disciplinary, professional, and social roads." Our humanities training can assist in translating between specialized vocabularies and between technical jargon and lay terms. In this collection, Michael O'Rourke and collaborators on the Toolbox Dialogue Initiative (Chapter 4) examine the value of such a facilitative role.

This raises a rhetorical challenge, for philosophers also run the risk of being perceived as obstructionist. People, after all, want to get on with their work. This danger is in part alleviated by the fact that the field philosopher is usually invited to a project after it has become clear to the members that they face issues that require a new perspective. Nonetheless, it is also advisable for the field philosopher to project a modest demeanor. Such modesty is both sincere and tactical: after all, modesty is appropriate when matters of ethics and justice are on the table. It is also a good idea to emphasize that, in addition to providing valuable critical insight, field philosophy seeks to open up alternative paths for the achievement of goals. Field philosophy nurtures opportunities as well as uncovering problems, opening up avenues and smoothing the path ahead.

## Supporting Field Philosophy

Training in philosophy today does not include preparation for doing fieldwork. While ecologists, geologists, and sociologists are likely to take courses in field methods and to expect that their jobs will involve reaching outside of academia—for example, by contacting private landowners about access or working with public agencies to collect data or implement research findings—philosophers are often less comfortable being involved with projects off campus. In the following essays, a number of philosophers found themselves doing fieldwork when they were approached by academic colleagues to join a research team or when someone outside the university requested that they consult on a project. Adam Brigg's work (Chapter 23) on fracking in Denton, Texas, for instance, grew out of a request for help by a city council member. Others found that their involvement in fieldwork grew gradually out of interdisciplinary and engaged teaching. A project related to teaching ethics across the curriculum might evolve into an interdisciplinary teaching team and then into



an interdisciplinary conference. While these latter do not fall under the heading of field philosophy, they build toward fieldwork by creating networks and setting up the conditions for identifying a project where philosophical input is valuable.

Another path to field philosophy is for fieldwork to emerge out of civic engagement outside the university. Alisa Bierria (Chapter 20) writes about the natural interest in theoretical inquiry that is required for innovative social justice programs. As activists aim to remake our social world, philosophical inquiry can be essential to creating a vision as well as helping to define the political culture of the activist group. Some philosophers have deliberately pursued field methods as an arm of their research program. Ricardo Rozzi's (Chapter 15) development of a field station for environmental ethics, science, and policy and Britt Holbrook's (Chapter 8) research on the policies surrounding the promotion of broader impacts are examples of research programs that involved integration with practice from the outset.

Still, as Nancy Tuana notes in her essay (Chapter 10), it is exceptionally rare for philosophers to be trained to do fieldwork. Fieldwork is a risky prospect for graduate students and for young philosophers, not least because the profession as a whole often appears to grant the most abstract and esoteric research areas the highest esteem. Some graduate programs, such as Michigan State University, are providing graduate students with the opportunity to develop research that involves fieldwork and to build the skills that these essays argue are essential: collaborative skills, technical skills in other disciplines, the ability to communicate with various audiences, and comfort in contacting and working with people who are not academics. Such innovation should be applauded, even as essays like this one work to theorize fieldwork and to develop institutional support for the value of public philosophy, engaged scholarship, and interdisciplinary research.

As part of providing supportive training in field philosophy, philosophers will need to develop a parallel set of theoretical points that explain and justify the *modus operandi* of field philosophy, such as devising means for measuring or evaluating impact, or understanding the rhetorical dimensions of working with different audiences. These points are discussed at greater length in the Conclusion. Finally, philosophers and intellectuals can be as wrong as anyone else, and as susceptible to the attractions of self-interest, which suggests that the idealism of field philosophy should be tempered by an appreciation of the dangers of over-reaching. In this sense, field philosophy is modest in nature, or as it is put in the Hippocratic Oath, "First do no harm."

## Field Philosophy: A Challenge and an Opportunity

Field philosophers give up some of the isolation from the real world that the academy provides. They take on additional uncertainty, risk, and inconvenience for the sake of greater relevance and impact. For all its virtues, the constraints of



disciplinary philosophical practice hinder the ability of philosophers to respond to growing demands for accountability from society. It can be a challenge to compare teaching evaluations and to weigh publications and citations, but these metrics are relatively easy compared to assessing the gap between efforts in the field and their possible effects in the wider world. But we think the extra effort is worth it: field philosophy complements disciplinary knowledge production through its focus on actual, ongoing contact with people at the project level.

Field philosophy seeks to expand the repertoire of philosophy so that it can meet the challenges of the twenty-first century. In an age dominated by science and technology the humanities are increasingly given short shrift. Traditional defenses of the liberal arts are no longer compelling, as the classical education that was common three generations ago—i.e., a familiarity with Plato and Shakespeare, perhaps combined with training in Latin—has given way to specializations in business and professional fields. Field philosophy provides a renewed defense of disciplinary philosophy and the humanities generally by showing how their insights can be integrated in a practical and timely manner.

While its focus is on particular cases, at its widest compass field philosophy seeks to change the cultural valence of philosophy. Field philosophers seek to be honest brokers, speaking without prejudice or bias; but in engaging the world, it is inevitable that they will at times acquire a political charge. It takes courage to enter this sometimes rough-and-tumble world. By highlighting matters of ethics and justice the field philosopher will sometimes challenge existing relations of power. This is where the protections of tenure come in handy, but there is no denying that things can get sticky. To an unusual degree, field philosophy draws on both aspects of Aristotle's virtues, the character as well as the intellectual virtues.

It has proven difficult for philosophy and the humanities generally to gain a foothold in public debate. In response, some of us have taken our philosophizing into the field. Given the assumptions of contemporary culture, field philosophy requires a willingness to operate in the background in partnership with people from all walks of life who face pressing real-life problems. The field philosopher seeks to bring the perennial spirit of philosophy into novel settings, renewing the ancient creed of speaking truth to power. Field philosophy, we believe, makes a real, concrete difference in improving peoples' lives. The essays that follow are examples of how this is done. We hope you will find them as inspiring as we do.

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## **PART I**

# **Collaboration and Communication**





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# 2

## EMBEDDING ETHICS IN NEURAL ENGINEERING

### An Integrated Transdisciplinary Collaboration

*Sara Goering and Eran Klein*

For the past six years, we have led the ethics “thrust” (i.e., group) in an National Science Foundation (NSF) funded engineering research center focused on neural engineering (the Center for Neurotechnology or CNT). In this chapter, we describe our experiences working collaboratively with an interdisciplinary team of neuroscientists, electrical engineers, neurosurgeons, and rehabilitation clinicians to explore the ethical implications of innovative neural engineering research and development. Our story provides a case study of integrating ethics in a scientific project and lessons learned in the process. We identify team attributes such as flexibility, perseverance, creativity, reflexivity, vigilance, and humility as significant features that contributed to the effectiveness of our interdisciplinary collaboration, and share challenges we experienced that are likely to be faced by many philosophers considering such “fieldwork,” regardless of the specific focus or arena of practical research.

#### 1 Getting Started

In 2011, the NSF funded a grant to establish the Center for Sensorimotor Neural Engineering (CSNE) (the Center recently changed its name to the Center for Neurotechnology or CNT)—a multi-site engineering research center, based at the University of Washington (UW), Seattle, with partner institutions at the Massachusetts Institute of Technology (MIT) and San Diego State University (SDSU), as well as educational partners at Southwestern University, Spelman College, and Morehouse College. Its initial aim focused on combining robotics with neuroscience to develop brain–computer interfaces (BCI). Because the ultimate goal involved developing design principles for neural devices that could restore or augment human sensation and movement, the



principal investigators recognized the potential significance of their work for broad philosophical questions related to what it is to be human and for ethical issues related to opening up new modes of access to and interventions on people's brains (Denning et al. 2009). As a result, they contacted the Program on Ethics at the UW Department of Philosophy to look for potential collaborators.

Given this situation, our initial foray into this philosophical fieldwork project was relatively easy. We did not have to look for partners or initial funding; they came to us. Nonetheless, the specific content of the project, and the best method by which to pursue it, were completely undefined. The initial funding—a month's summer salary for one philosophy faculty member, and \$2000 summer stipends for four graduate students—involved a very short internal grant proposal that was intentionally exploratory. Our aim was to figure out how we might best do ethics work in conjunction with neural engineers.

During that first summer, the ethics group met weekly to discuss papers exploring ethical issues with existing neural technology (for example, deep brain stimulators) (e.g., Klaming and Haselager 2013; Kraemer 2013); papers on a variety of present and future neural interventions (e.g., Clausen 2008); and papers focused on different models of ethics engagement in scientific practice (e.g., Fisher et al. 2006; Cho et al. 2008). We also attended CNT events—colloquium talks, student research groups, etc.—to try to get a better sense of what the scientists and engineers affiliated with the CNT were working on. We faced a steep learning curve and spent a fair amount of time just trying to work out what brain–computer interfaces *are*, given disagreement among the scientific community (Nijboer et al. 2013), and to what uses they might be put.

By mid-summer, we realized that we would need more direct input from the neuroscience researchers if we were to have any chance of successfully integrating our ethics component with the ongoing work in neuroscience and engineering. We needed to know: (a) what the main aims of the affiliated labs and projects were; (b) what the principal investigators (PIs) saw as the most significant current and likely future ethical issues arising from their work; and (c) how they thought we could best work with them to explore those issues. With permission of the Center director, we set up an informal interview project, with our graduate students conducting hour-long interviews in person, where possible, or by video conferencing. We started by asking each PI to describe their work and then asked them to tell us about ethical issues they thought might be related to it. We had developed a list of ethical issues found in the neuroethics literature, and interviewers prompted PIs to consider these issues if they had not already come up in discussion. Finally, we asked PIs how they thought ethics engagement in the Center ought to work, offering a range of possibilities from an ethics consultation model (Cho et al. 2008) to a fully embedded humanities researcher in each lab (Fisher et al. 2006).

Although we were just feeling our way that first summer, in retrospect, what we developed was a *bottom-up approach* to understanding the needs of our



Center. Starting with interviews with the PIs gave us important scientific grounding in the area and a good sense of the range of projects housed within the Center, but it also positioned us as potential *collaborators* on ethical issues, rather than as ethics “police.” By reaching out to researchers early on we demonstrated our commitment to understanding what they do, and our commitment to helping to shape technology development with them. In the interviews, we treated the PIs not just as experts in their own areas (e.g., electrode design, neurosurgery, computational neuroscience, bioengineering) but also as people well-positioned to help us recognize and think through potentially troubling ethical matters. Of course, we also brought our own expertise to the exchange. We raised issues related to human identity, privacy, responsibility, and security, inviting the PIs to explore with us how these fundamental human values intersect with the kinds of work undertaken in their labs and beyond. We emphasized our philosophical training, to make clear what we could offer in the collaboration. In so doing, we also proclaimed what we were not: people who would take over all the applications to the institutional review board (IRB) for projects using human subjects, or with the expertise to help navigate through regulatory processes of device approval (e.g., with the Food and Drug Administration).

In respect of modes of ethics engagement, some themes stood out from the interview transcripts. On the one hand, most of the PIs seemed to think that an ethics consultancy service would not be successful, given that the PIs might not always be able to identify the relevant ethical issues on their own or, even if they did, they might not be motivated to make use of the consultancy service until it was “too late.” The PIs wanted a more integrated approach to ethics. On the other hand, some of the PIs found the idea of having a humanities or social science researcher in their lab all the time (modeled on the Socio-Technical Integration Research, or STIR model; Fisher et al. 2006) a bit “creepy” and, in any case, unlikely to be fundable (given the number of labs and the cost of research assistants). What they preferred was something in the middle—an ethics group that would be more integrated with the daily work of labs than a mere consultancy service but also feasible and fundable. What, exactly, such a Goldilocks approach would look like was unclear.

## 2 Finding Our Way

How does one build a program that productively integrates people across disciplines, given busy schedules, different locations on campus, some serious translational gaps given different disciplinary languages and expertise, and competing commitments for everyone?<sup>1</sup> Most of the PIs ran labs that were only partially funded by the CNT (e.g., funding for one graduate student). While they were committed to the Center’s interdisciplinary projects, their attention was inevitably distributed across CNT and non-CNT supported projects. The same was true



for the philosophers, who had regular teaching obligations, administrative duties and, for the graduate students, coursework and qualifying papers to complete, most of which had little or nothing to do with the content of the CNT work.

Finding pathways to successful integration demanded flexibility, persistence, creativity, reflexivity, and vigilance. We had to be open to learning, humble about our skills, and able to translate matters of ethical significance into plain language. Even in a context where scientists recognized the need for input on ethical issues (vs. getting a top-down mandate from a funder or institution), we had to work to show the value of philosophical content, figure out ways to integrate it into the ongoing science and engineering work without sacrificing the rigors of our discipline, work to make our “products” intelligible in the world of engineered devices and electrodes, and remain nimble enough to shift directions when funders demanded restructuring or a new scientific focus. Each of these issues will be taken up in the next section.

Interestingly, the initial interview project—conceived in a desperate attempt simply to understand better what was going on within the CNT—also helped us to fulfill the first of what we would find to be our annual duty, reporting our progress to the NSF. Within the Engineering Research Center (ERC) structure, the NSF requires an annual site visit (by a select team of scientific experts and NSF administrators) to hear about Center integration, progress, and future plans. A detailed annual report of activities is produced each year, followed by an in-person series of presentations for the site visit team, with opportunities for critical questions and a poster session. The site visit team then writes a report that highlights strengths, identifies weaknesses, and ultimately makes recommendations for future funding.

Conceptual and normative philosophical work does not fit easily into the typical ERC categories specified (focused on empirical data, number of patents, conference proceedings, industry partnerships, etc.). Even producing scientific posters about our normative philosophical work was a new experience, and we struggled to fill posters and PowerPoint slides with the kinds of visuals (e.g., graphs and tables) that scientists and engineers take for granted. Unlike some of our other early efforts, the interview study provided recognizable “data” for the site visit team, and helped to make the case for areas of study the ethics group would need to pursue, at the same time as helping us to clarify our collaborative opportunities. Although we found preparation for the site visits time-consuming and stressful, we did gain perspective on what we had done, what we hoped to do, and how we might best get there. What started as an administrative burden positively influenced our philosophical vision, in some ways, by requiring a period of reflection and reassessment in advance of reporting (still, we might productively question the regularity of the cycle of administrative review and the amount of reporting required).

Since that first year (at the time of writing, we have completed our sixth year with the CSNE, now CNT), the ethics thrust has grown to a robust, integrated



team—two faculty members, a full-time postdoctoral researcher, two graduate full-time research assistants (RAs), three part-time graduate fellows and several undergraduate research assistants—that produces conceptual, normative, and empirical work (in posters, presentations, blog posts, and publications) for a wide range of audiences. Our version of field philosophy is based on multiple levels of philosophical engagement with scientists and engineers, from a fully-embedded, full-time philosophy RA who has a desk in the biorobotics lab, helps to run experiments with human participants, and is a co-author on most papers from that lab, to part-time ethics fellows who occasionally meet with lab groups, develop collaborative projects, and generally work to provide a liaison between the ethics group and the scientists. We have found that increased exposure and interactive occasions—even if not always targeted specifically at ethical dialogue or problem solving—allow for the development of trust and mutual respect, a crucial foundation for any successful transdisciplinary collaboration. In many ways, just “being in the room” has value, given the opportunities for relationship building it generates, the recognition that the ethics team is always part of the conversation, and the ultimate significance of seeing each other as team members who have shared aims for producing high quality, high impact work.

### **3 Where We Are Now: Challenges, New Skills, and Models of Engagement**

Our projects have ranged from more theoretical conceptual and ethical work on issues such as privacy, narrative identity, and agency (e.g., Klein et al. 2015; Goering et al. 2017; Klein and Rubel 2018) to more practical policy-oriented work on informed consent (Klein 2016) and ethical guidelines for BCI development and neurotechnologies (Yuste 2017). We have also carried out our own empirical research, using focus groups, interviews, and surveys to consult with important neural engineering stakeholders, including BCI researchers (Specker Sullivan et al. 2017; Pham et al. 2018), end-users of neural devices (Klein et al. 2016), and individuals with disabilities who are considered prospective end-users (unpublished data).

In our normative and conceptual work, we have found that working in collaboration with neuroscientists and neural engineers has helped us to look at some classic philosophical issues in a new light. Consider the following example, by way of illustration. Philosophers working on the right to privacy tend to understand it as a matter of control over access to one’s personal information (e.g., Moore 2010). In the current era, privacy seems to be a waning concern. Many people agree to surrender much of their personal information online, through social media, internet retail, apps for navigation, etc., and they do so for the sake of convenience and connection. They might, therefore, be said to voluntarily share their data, and to retain wanted privacy (given that they retain



control over access; they just do not value reserving access to their data). BCI devices would seem to offer up more of the same, albeit with great informational granularity. BCI devices promise regular access to the contents of a person's brain (e.g., tracking recognizable motor intentions that drive BCI performance, recording a person's visual experience, or identifying a person's emotional state based on patterns of neural activity). Insofar as this access is given voluntarily, no violation of privacy would seem to occur. Yet BCI devices crack open the last, untapped source of information about human beings and their internal states. Through interacting with neuroscientists and machine learning experts, we now understand that individual controls over access may not sufficiently protect a person's privacy in respect of these most intimate spheres. Big data mining may be able to make use of data from others who voluntarily share access to their brain recordings, combine it with other available data sets (e.g., computer and phone interaction patterns, retail trails, location data), and extrapolate private (and unshared) brain states with increasing accuracy. Perhaps broader social protection for brain privacy is warranted (Yuste et al. 2017).

The empirical work has also informed our philosophical thinking in productive ways. Consider the issue of privacy again. Putting aside worries about the voluntariness of such informational exchanges, our interactions with prospective and actual users of BCI technology raised concerns about the general adequacy of the framework of privacy as information control. For instance, individuals with amyotrophic lateral sclerosis (ALS) contemplating use of BCI for future communication assistance, those with severe depression receiving deep brain stimulation (DBS), or those with epilepsy having patterns of brain activity recorded and analyzed, rarely expressed privacy concerns in terms of information control. For the individuals with whom we interacted, privacy was primarily understood in terms of relationships. To have privacy was to be able to foster meaningful kinds of relationships (with friends, family, caregivers, etc.). For example, privacy in the use of a BCI communication device in ALS was less about keeping others out of one's inner mental life (in fact, the fear of many with ALS is being trapped with *only* one's inner life), and more about using a device to connect differently with different individuals—to banter with friends, bond with loved ones, or problem solve with caregivers. In people using DBS for severe depression, using the device allowed some to get closer to spouses, parents, or friends. For them, privacy was experienced as the freedom to have the kinds of intimate relationships they wanted (and to which depression was an impediment) or to have less intimate relationships with others (e.g., not needing to make employers aware of occurrent depression).

The empirical work was also a challenge. Because philosophers typically are not trained in qualitative methods, we had to find partners to help us learn the basics of designing surveys, interview scripts, and focus group guides. One of our initial graduate student fellows already had such training, and she was able



to guide our early efforts in empirical work. After several years of very part-time support for the group (one month of summer salary for Goering, one day per week of support for Klein) and site visit reports that lauded the ethics group and recognized our limited human resources, we were funded to hire a full-time postdoctoral researcher to take on more of the day-to-day work of the ethics group. In developing our position advertisements, we carefully highlighted our need for someone with qualitative research experience as well as philosophical training.

Although empirical work is not a normal part of a philosopher's workload, we started the CNT collaboration with a commitment to making sure that the perspectives of people with disabilities would be represented in our group's (and the Center's) work. One member of the group is affiliated with the UW Disability Studies Program, an interdisciplinary academic group committed to teaching and doing research that recognizes the sociopolitical nature of disability and the need for justice rather than (only) medical treatment to address the problems faced by people with disabilities (e.g., Scully 2008). Given that commitment, we were initially somewhat hesitant to join a research group focused on "helping" people with disabilities through transformative technology designed to, for instance, reanimate paralyzed limbs. But assistive technologies come in many forms (Aas and Wasserman 2016; Stramondo 2019), and we realized that we would be in a position to work toward ensuring that the views of people with disabilities were attended to during the earliest stages of technology development, as a kind of justice as recognition (Goering and Klein 2018). Doing so would require some empirical data on what those views *were*, particularly in relation to the kinds of neural technologies under development at the CNT.

We put in our first application to the IRB for a study using human subjects, commissioned a professional facilitator, and ran a focus group with people who have spinal cord injuries, to get their input on the technologies under development and the related ethical issues. We also asked them about their views on the importance of having people with disabilities give input on projects like these. We crafted the focus group guide to cover the content areas in which we were most interested, but we hired an experienced facilitator to conduct the group and do the initial thematic analysis. Once we observed the focus group and had a better sense of what went into the analysis, we were ready to take on more of those roles ourselves, making use of our experience leading philosophy discussions in college classes to keep track of key points, invite others to share their perspectives, and manage time. In addition, our philosophical teaching experience helped us to be sensitive to and able to identify implicit moral claims made by participants, to help participants explore their reasons for their claims, and to encourage some critical discussion of those reasons. We turned to our qualitative colleagues for help with the data analysis, but eventually also learned techniques in coding and discourse analysis.



We have reported our findings from these empirical studies, as well as from our own normative work identifying key ethical issues related to neural devices (Klein et al. 2015, 2016) and working through some of those issues in more depth (e.g., Goering et al. 2017), at CNT monthly leadership meetings, the CNT annual retreat, and the NSF site visit. Still, in the first few years, we struggled to figure out how to integrate our work with the rest of the Center more thoroughly. We applied for internal CNT grants to fund our neuroethics fellows program (paying philosophy graduate students a small stipend for roughly five hours per week of their time, to be done on top of their teaching duties in the philosophy department). The fellows helped with research and writing in the ethics group and were assigned to several key CNT labs, with the idea that they would go to weekly lab meetings and observe—to get a better sense of what each lab was doing and to help identify ethical issues or opportunities for collaboration as they arose.

This model of integration did not always work well. Some fellows (two out of five) emailed the PI of their assigned lab repeatedly and never heard back. Others heard about the meeting times or changes to meeting times, but only at the last minute, or the meetings occurred when the students had teaching duties. Mapping the fellows' availability and particular interests on to the labs' practices was difficult and when they were able to attend meetings they often felt like outsiders or had limited understanding of what was discussed, given that they were not privy to the day-to-day issues leading up to the lab meeting discussions. Nonetheless, even sporadic attendance allowed them insight into how responsibilities were delegated within the lab and how researchers communicated their work. The fellows had to be persistent and thick-skinned, learning to take these difficulties in their stride, without losing confidence. Having a weekly group meeting of our own helped to build camaraderie among the fellows, allowed them to share successful strategies (e.g., starting by contacting graduate students in the lab rather than busy PIs), and steeled them to return to the labs. Some of the partnerships worked out very well.

One of the PIs was developing a project that involved participants who had a neural device implanted therapeutically for essential tremor. He was interested in consulting with his research participants about their experiences and views on related ethics issues. Because a philosophy graduate student had already been attending his lab meetings as part of our fellows programs, he suggested that we consider putting in a grant for a full-time RA in ethics to be situated in his lab. The student had a desk in the lab, participated in a substantive way in lab activities (setting up for experiments, helping to write grant applications, writing and editing papers for publication, presenting work at the lab meetings, etc.) and was treated as a full member of the lab. The philosophy graduate student placed there developed great relationships with the other graduate students in the lab and found a multitude of ways to contribute his expertise to the group (e.g., helping with their website, writing abstracts and papers for conference



submissions, working on scientific posters, etc.). He developed many transdisciplinary collaborative projects with the team, and presented their work at a variety of interdisciplinary conferences, such as We-Robot, IEEE [Institute of Electrical and Electronics Engineers] ethics, and the International Neuroethics Society meeting. His work was deeply integrated into the lab's work, with the aim of being seen as a committed collaborator rather than an outside ethics consultant or interloper. Although he has, at times, had to explain and defend his embedded work to other philosophy graduate students and faculty ("What do you mean, you're interviewing people?," "How and why do you think the empirical data will affect your philosophical arguments?"), he quickly recognized that the skills he was gaining—translating his philosophical interests and arguments into plain language, identifying objectives and hypotheses for grant writing, summarizing philosophical and empirical results succinctly, etc.—would be widely transferable as he explored diverse career pathways. Although he is well-positioned for a traditional academic career path, given his publication record, mentoring experience, and skills at pitching his projects to non-experts, he has also opened up new career possibilities. Through his lab work he has been in contact with various medical device industry and think tank researchers, who have floated the idea of hiring him as an ethics expert for their companies when he finishes his dissertation.

We successfully integrated our first postdoctoral student with another lab doing human studies, but we needed a different strategy for integration for the other neuroethics fellows. We still tried to put them in conversation with particular labs, and asked them to help us respond to particular requests for help. For instance, one site visitor requested that we come up with a set of ethical guidelines for neural device developers that could be shared outside of our center. We had neuroethics fellows in our group review the literature for related guidelines, analyze their strengths and limitations, and then begin to develop a set of specific guidelines that could be shared. Recognizing the need for broader input, we also developed a survey to assess our recommended guidelines. We piloted the survey with CNT PIs, and then distributed it to attendees of a large international meeting of BCI scientists (the International BCI Meeting at Asilomar in 2016). In this way, even fellows who were not explicitly tied to a particular lab were active participants in helping the CNT to meet its goals.

After a successful trial year of having a philosophy graduate student RA for the CNT, we asked for an additional RA, to undertake a specific project of developing our ethics engagement program. We pitched the idea of developing a workshop dialogue tool that would bring researchers together for an ethics workshop to identify and explore their value assumptions in respect of CNT-related work. The RA was funded, and he worked full-time on developing the ethics engagement tool Scientific Perspectives and Ethical Commitments survey (SPECs). In his design, the researchers each individually took a short survey on



beliefs about neural devices in relation to privacy, identity, responsibility, the value of species-typical functioning, and enhancement prior to the workshop. Then a facilitator guided a discussion as they worked collectively through the survey questions, highlighting points of agreement and disagreement, considering reasons for their answers, and critically analyzing their perspectives (for related approaches to uncovering epistemological assumptions in interdisciplinary work, see O'Rourke and Crowley 2013). Researchers retook the survey at the end of the workshop, to identify if and how their views might have changed as a result of the process. The RA piloted this tool at all three CNT institutional sites, and recently led a workshop at the 2018 BCI conference at Asilomar for a broader group of researchers.

Working in the CNT has been valuable for our neuroethics fellows in a variety of ways. Although not all of our neuroethics fellows have dissertation projects that focus explicitly on neuroethics, the other students have interests in bioethics, or the intersections between science and values, and the CNT experience often influences their philosophical work. A past student wrote a dissertation on accountability in technoscience, using the CNT as a central example of how technoscience develops, and is currently working in a postdoctoral position in neuroethics. Another student is writing on issues of scientific consensus and the value of dissent, and she will use her experience at the CNT to consider how groups with different expertise (e.g., philosophers and humanities scholars) and/or experiences (e.g., end users) can contribute to the group's knowledge.

## 4 Lessons Learned

Reflecting back on our experience as embedded ethicists thus far, we recognize several lessons that we have learned in the process of finding our way, identifying and making our contributions, and ensuring that we were “productively disruptive” in our approach (Fisher et al. 2015). Our aim was to develop our collaboration, while making it both productive and responsive to real needs (for the scientists, for end-users, for us, and for the broader neurotechnology community) and able to be constructively critical. We wanted to gain trust, but also to shake up norms of practice in ways that could foster new, ethically-conscious research and design practices. Here, we set out several of the attributes of our engagement approach that we would recommend to other philosophers considering embedded or engaged philosophical work.

### *Flexibility*

Unlike in a typical philosophy career that allows for slow, reflective, and deliberate work on a self-chosen research project, our experience with embedded ethics required speedy responses, significant adaptability, and willingness to be flexible given multiple stakeholders. ERC grants can run for a maximum of ten



years (if funding is continued). In that amount of time, many features of the Center can change, whether due to site visit recommendations to de-fund or de-emphasize certain components, or to changes in faculty and staff. When we started, we had to put in significant effort to get up to speed on the basics of the science and engineering components of the Center, just to be able to understand the presentations and work done by our colleagues. That effort was usually rewarded, but as the Center's focus shifted following a change in leadership (from robotics to engineered neural plasticity), we had to scramble to keep up.

For example, we ran an early focus group that looked at BCI-controlled exoskeletons, BCI-controlled prosthetics, and the possibility of reanimation of limbs through BCI control. Shortly afterwards, a site visit team encouraged the Center to eliminate the focus on the first two possibilities, given competing work at different institutions. A different site visit team pushed the leadership to better define the Center's "product," which led to a move toward "design principles for bidirectional BCI" as opposed to specific devices. In recent years, the focus has shifted to "engineered neural plasticity" as a goal, with different fundamental research groups defined and brought on board. Not all of these changes were drastic, of course, but responding to the pressures to shift in different directions, because of the recommendations of the funders, required flexibility and willingness to adapt on the fly. A project that uses the "old" Center language—e.g., a study looking at how BCI is depicted in the media, as a way to assess how prospective neural device users are likely to think about BCI when they consider entering a research study—might appear out of place within a year due to a shift from "BCI" to "neural devices" more generally (e.g., to capture the spinal stimulation work done by a PI working with human subjects).

We sometimes felt that we had identified key issues and initiated an ethics research project, only to find that the science and engineering grounding for the work had shifted. We had to be prepared to spend significant time gaining a reasonable understanding of a complicated science and technology arena, all while remaining nimble enough to shift directions when funders demanded restructuring. This could be frustrating, but it also helped to ensure that as philosophers, we were responsive to issues faced by others outside our field, and were therefore *relevant*, rather than set fully apart from other fields of inquiry. We value and appreciate the more abstract and less practical forms of philosophy that some of our colleagues practice, but we have also found value in this more engaged philosophical practice that is partnered with ongoing real-world affairs, with the aim of both understanding changing technological opportunities and working toward more just and ethically sensitive designs.

The need to measure and show results is a pervasive feature of science and another way in which we had to be flexible. The measurement imperative was felt acutely when we had to prepare status reports of funded projects or to present our work in posters or five-minute presentations. The issue here was



not just formats less conducive to communicating concepts or theories, but the juxtaposition alongside *other* posters or presentations in which quantifiable data was the centerpiece. By not conforming to presentation of “data,” we risked our work not being understood and valued. So, we found ways to collect and present “data”—for example, quotes from end-user focus groups—but embedded within discussion of conceptual issues and frameworks. More broadly, we had to be flexible about how we viewed our own impact within the Center. We took the goal of our involvement as raising awareness about ethical issues and, where appropriate, motivating neural engineers or others to act. But, given the measurement imperative, it was difficult not to apply the same measurement impulse to our own work. How could we prove that our ethics efforts were “impactful”? What could be measured to show that progress had been made? Why support (or fund) what you cannot straightforwardly measure through quantitative representations? And while we generally resisted the desire to view our efforts (and their worth) purely or predominantly in terms of quantifiable measures, we did explore ways of quantifying ethical change (e.g., the SPECs project).

### ***Persistence***

Starting the collaboration was daunting but exciting, as it presented a real opportunity to get involved on the ground of a fascinating technoscience research project. Continuing the collaborative work, however, required persistence. Figuring out what needs to be done, and how best to do it in such a new environment, with limited models to which to draw on, can be a serious challenge. If the work takes the philosopher out of her comfort zone (and it will)—struggling to develop survey or focus group questions and to understand how to analyze them, trying to understand scientific presentations that are intended for specialists, wondering how to fill out year-end reports filled with categories that seem not to apply to one’s own work, etc.—there are many opportunities to quit and return to her previous, known world. Sometimes the expectations from the site visit teams were daunting (“build an international reputation”) and seemed to require far more than the relatively limited funding and available personpower could afford. In other cases, the site visit team simply did not fully understand what we were trained to do (e.g., one site visitor in the early years demanded to know how soon we would have acceptable trade-off data so as to inform the FDA about parameters for approval!).

We also found ourselves under pressure to write outside grants and put in significant time and effort to develop a supplemental project idea, write the proposal, learn the funding agency’s submission system, develop a reasonable budget, etc., often without much if any support from administrative personnel, and unfortunately sometimes without any payoff at the end. Learning to write, submit, and rewrite grant proposals and develop new collaborative partnerships



requires persistence. If all these challenges were to arise in the context of not having the work fully understood by one's home department (philosophy), the temptation to step back would only increase. Philosophy departments may simply not be prepared to take on the role of administering grants (or have the relevant experience to help secure them), or they may not recognize the ways in which this kind of collaboration can enhance philosophical work, rather than simply providing a service to science or engineering. In our case, the UW philosophy department prides itself on engaged philosophy, whether in the realm of philosophy of science or applied ethics, and so was quite supportive of our efforts.

### ***Creativity***

Given disciplinary differences in understandings of “research,” we had to get creative about translating our work into the language and structures of science and engineering. For instance, in developing a normative paper a philosophy researcher typically does a literature review, selects relevant pieces to help put together a background setting (making careful choices about what is relevant and what is not, how to narrow the scope of the paper, etc.), builds an argument, identifies and considers likely objections, and develops responses to those objections. To the scientist, the lack of empirical research or identifiable “data” collection suggests that little or no work is required; once the literature review is done, writing the philosophy paper should take very little time. We worried in the early years that our science and engineering colleagues would not understand the kinds of preliminary work we needed to do (understanding the technologies, considering the constraints on technology development, surveying writings on relevant precedent technologies, etc.) in order to be prepared to start writing normative papers in the area.

Thus, even in a context where scientists recognized the need for input on ethical issues (vs. getting a top-down mandate from a funder or institution), we had to work to show the value of philosophical content, figure out ways to integrate it into the ongoing science and engineering work without sacrificing the rigors of our discipline, and work to make our “products” intelligible in the world of engineered devices and electrodes. This required finding creative ways to meld infrastructure and incentives familiar to science with those conducive to ethics research and philosophical scholarship. So, rather than funding a single full-time RA, equivalent funding was divided among four or five philosophy graduate “fellows” who met weekly to read and discuss journal articles or works in progress, recognizing that building a community of philosophers would be more valuable than a single RA, given the different needs for developing and completing projects. Another example of this was creative interpretation of grant language that provided funding for “supplies and equipment.” While we did not need to buy electrodes or lab rats, we did need to pay for focus group



transcription and to study participant incentives or for a part-time RA to do a targeted literature review. Many of these needs were funded as “supplies and equipment.”

### ***Reflexivity***

We also needed to subject our own activities, assumptions, and positioning to self-critique. Consider the tension between philosophical scholarship and service. Are the labs we chose to embed students in those that are the most interesting from a philosophical point of view, and perhaps make for the best publication opportunities, or are they the ones that are most important for the Center? For instance, issues surrounding reading intentions from neural devices may be of great philosophical interest, but end-user concerns about safe neurosurgical procedures may have greater real-world impact. Given limited resources, where should our efforts be put? We learned to respond to opportunities made available, but always with thoughtful attention to our own aims which were, and are, mixed between scholarship and service. We were able to increase our capacity over time, at least in part because the NSF site visitors were enamored with the neuroethics group (in at least one site visit report we were described as the “gem” of the Center), but even in this context, our power was relatively limited. Because we had no independent funding stream, we could only work in ways that ultimately served the goals of the Center and the funding agency. We tried to learn from other experiments in engaged ethics—for instance, the “human practices” thrust of an ERC devoted to synthetic biology (Rabinow and Bennett 2012)—to find the right balance between doing the scholarship we most valued and serving the aims of the broader technoscience project.

One constant in our efforts has been the highlighting of disability perspectives, and the importance of understanding them in designing devices intended to benefit people with disabilities. In the early years, we held a focus group with individuals with spinal cord injury (SCI), and asked them about their attitudes and concerns regarding various BCI technologies under development. One of the things we heard was that restoring walking was too often understood to be the “holy grail” of technology by (non-disabled) technologists, while SCI people were more interested in bowel and bladder control, sexual function, and/or sensory restoration as priorities. Additionally, one of our participants noted that low-tech assistive devices might work much more effectively and efficiently than some of the BCI devices under development (at least in the near term), and that perhaps we ought to use the money that was being used to fund the BCI research to improve access to or reliability of such low-tech options. Given these comments, and our efforts to highlight them to help influence the Center’s direction, we sometimes felt tensions between what we valued and what the Center was funded to develop. Maintaining a self-critical stance



allowed us to evaluate our commitments and to consider alternatives (e.g., What would the Center look like if we were not regularly raising disability rights focused concerns?), as well as pushing for the early inclusion of end-user values in the design process. Because our “home” funding was not dependent on our work in the Center (i.e., a faculty position in philosophy in respect of one of the authors, a practicing neurology position in respect of the other, and teaching assistant opportunities for philosophy graduate students), we felt secure enough to be able to speak openly about our commitments and concerns. This problem of sufficient independence is an issue raised as a potential problem in ethical, legal, and social issues (ELSI) research (Klein 2010). Appropriate reflexivity may require some level of financial independence.

### ***Vigilance***

Vigilance was needed on several fronts. One was reputational. The mere presence as an ethics group can give the “imprimatur of morality” to socially controversial science (Cho et al. 2008). So, we needed to be careful that we were not being used as an explicit or implicit form of public relations. A second front in which vigilance was exercised was in the role of the ethics group, specifically its relationship to regulation and compliance. Even though, at the outset, we made it clear that we would not be doing IRB or FDA compliance work, the issue was revisited frequently. And when we did engage in this activity (e.g., helping to write consent forms), it was selective and tied to specific collaborations between neural engineers and embedded ethicists (e.g., RA or postdoctoral). But the pressures to backslide came from other directions as well, such as NSF site visitors repeatedly asking us to take on the role of reducing FDA barriers to device approval.

### ***Openness to Learning/Humility***

The NSF site visitors regularly asked for advice on how to share what worked in our ethics thrust to other neural engineering centers and ERCs. One of the questions this led us to consider is what allows for good will among collaborators from such different disciplinary backgrounds, and the capacity to work together rather than at cross-purposes. While the NSF ERC structure, which requires cross-disciplinary teamwork that spans fundamental research areas, helps to scaffold the collaboration, in our view a key feature of successful partnership is openness to learning and humility. Although philosophers brought in to collaborate on a scientific project have expertise to offer—familiarity with a history of philosophical conversations on ethics, facility with the language of morality, recognition of significant features of the moral world and key distinctions within that realm, awareness of common errors in logic—that expertise ought to be deployed in ways that also acknowledge what is *not* known. The context of a



scientific project looking for answers and progress can create significant pressure to present one's philosophical thinking overconfidently. The ambiguities of philosophy may get inadvertently smoothed over in an effort to demonstrate expertise and play one's part.

In addition, philosophers are sometimes prone to overconfidence in their own ideas, despite their disciplinary commitments to seeking "truth" (or something close to it). For instance, in a paper on how argumentation can help to cultivate intellectual humility, Kidd (2016, 401) suggests that a "fact that complicates easy claims about the humbling potential of argumentation is an observation about the conduct of many philosophers ... who are highly trained and experienced in argumentation ... but who, nonetheless, evince chronic overconfidence." In this unfortunate reality—given continuing norms of "aggressively adversarial modes of intellectual engagement" (Kidd 2016, 401) within the discipline—field philosophers who aim to be successful will need to check their argumentative styles and confidence levels, and acknowledge and develop sensitivity to what they may not understand.

## Conclusion

Over the course of the past six years, our group has gone from being the odd one out ("and now for something completely different") at the annual site visit, to a fully integrated research group. Progressive integration of our ethics team has helped us to build relationships of trust and to become true collaborators, fully embedded within the broader research project. Working in the "field" of neural engineering has been a rewarding challenge and has helped us to reimagine the value of philosophy and practice it in novel ways. What started as a part-time collaboration became a full-time research endeavor with a robust team, and fertile territory for a wide variety of fascinating philosophical projects. The "lessons" we learned in the process—a collection of attributes that contribute to successful transdisciplinary partnership—may help budding "field philosophers" find their way as they endeavor to create engaged philosophical practice through partnership with scientists and engineers.

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## Note

- 1 We read with great interest the book *Designing Human Practices* by Paul Rabinow and Gaymon Bennett (2012), about their work in an engineering research center focused on synthetic biology. They provide a cautionary tale for humanities or social science scholars aiming to integrate their work in a large-scale science/engineering project, given that their group was de-funded after the first five years of a ten-year grant.

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# 3

## LAB REPORT

### Lessons from a Multi-Year Collaboration between Nanoscience and Philosophy of Science

*Julia R.S. Bursten*

In this chapter, I describe a successful ongoing collaboration between Dr. Jill Millstone, a nanochemist, and myself, a philosopher of science. Jill<sup>1</sup> runs a laboratory that creates new architectures of noble-metal nanomaterials and researches their fundamental properties and characteristics. I am involved in a research program focusing on the role of scale in material behavior and the varieties of inter-theory relations in the physical sciences. Our collaboration began in 2011 at the University of Pittsburgh, where Jill was then an Assistant Professor of Chemistry and I was a graduate student in the Department of History and Philosophy of Science. It has continued through Jill's promotion to Associate Professor and my graduation and first years on the tenure track. Our collaboration has taken many forms, beginning with me, as a student, coming to Jill's office hours and encompassing my participation in her weekly lab meetings, Jill's service on my dissertation committee, our embarking on experimental joint outreach projects, and our co-authorship of essays for both scientific and philosophical audiences.

My aim in documenting this collaboration is not to present an instance of qualitative research on the phenomenon of collaboration nor a philosophical argument for collaboration as a preferred methodology in philosophy of science. Rather, what follows is a personal narrative of my collaboration with a chemistry laboratory as a graduate student in the history and philosophy of science—a discussion of how this unusual undertaking has informed my research career and of the set of lessons I have carried forward into other collaborations. My hope is that highlighting both the successes and failures of this collaboration will provide insight for other philosophers of science aiming to begin and sustain collaborations with scientists, and perhaps also for scientists aiming to collaborate with philosophers. Additionally, I hope that by presenting an account of a



collaboration between laboratory scientists and a philosopher of science, I can introduce a complementary narrative to projects that have embedded sociologists, anthropologists, historians, and other researchers in science and technology studies (STS) in laboratories. The targets of the study and research methods I employed are distinct from those of laboratory-embedded humanists from other disciplines, such as Erik Fisher, Bruno Latour and Steve Woolgar, and Sharon Traweek.

## Originating the Collaboration

I met Jill when I was finishing my Ph.D. coursework in philosophy of science and was beginning to focus on the set of research questions that would comprise my dissertation. My main research interest was in the philosophy of chemistry, and my chemistry classes had led me to a series of questions about how chemists make sense of electronic behavior in metallic compounds too complex to be described by quantum mechanics. This domain posed some interesting challenges for philosophical theories of modeling, and, moreover, I just liked thinking about metals.<sup>2</sup>

My graduate program and my dissertation director, who was not in my department, were both supportive of students taking classes in science departments after basic in-house course requirements were met. This support was extremely helpful in developing my collaboration, as it allowed me to take the classes that led me to Jill's classroom. So here is a quick first piece of advice: mentors should encourage graduate students to take classes outside their home departments when students have specific interests that cannot be accommodated within a department. At many institutions, administrative barriers can interfere with sharing students across departments, so the support of mentors in encouraging student interests and assisting with registration hurdles can change the course of research careers. It certainly did mine.

While studying the Fall 2011 course catalog, I came across a class titled "Atoms, Molecules, and Materials," which focused on nanomaterials—a class of materials that encounter modeling challenges similar to the ones that excited me about the metallic compounds I had studied. I could not register without permission from the instructor, so I sent a request to register along with some basic background information about my experience and interests.

I received a very brief reply asking for a meeting. As a graduate student with little experience of communicating with professors outside my discipline, I read the brevity of the email as curtness. I know now that different disciplines have different norms for electronic communication, and I even discuss expectations for email communication when I'm setting up new collaborations. Here is a bit of highly anecdotal reporting: natural scientists rarely write emails longer than about a paragraph, and they find the multiple-long-paragraph structure of many humanists' emails alienating. Some people tend to use bold, italic, and bullet



points to highlight information, while others find it pedantic; these preferences have vague overlaps with disciplinary boundaries between the social and natural sciences. Pleasantries are optional and generally seen as a distraction, especially for faculty on the tenure track. Emails are more likely to get responses when they close with a direct request, either for information or a meeting, especially if the request comes with a (reasonable) deadline.

I was nervous about meeting Jill. I wanted to leave a good impression of myself and of philosophy of science. I consulted with colleagues about how to prepare, and I read her webpage and a few of her papers. Despite my best efforts, the meeting was awkward. It was scheduled in a conference room in a building I did not know well, with someone I had never met, and I was not prepared for how much that novelty would affect my composure. I stumbled and mumbled, started more sentences than I finished, and occasionally talked over Jill rudely.

I know now that there is a lot about initiating a collaboration that is inherently awkward, and I have learned to embrace the awkwardness, but at the time I was sure I had failed some kind of test. Jill was clearly very busy, did not want her time wasted, and was not at all sure whether talking to a philosopher of science would be a good use of her time. In order to try to convince her that I wasn't wasting her time, I explained my background in chemistry and stumbled through a muddy introduction to philosophy of science. It ended up working, less because of me than because of Jill: she had a background in English as well as chemistry and took an interest in some of the technical vocabulary in philosophy of science. Our discussion of the word "epistemology" sold her on letting me into her course.

## Advice for Initiating Collaborations

While our conversation ended up convincing Jill to let me into her class, other cues suggested to her that I was a viable potential discussant. For instance, my dissertation research was supported by a fellowship from the National Science Foundation, which indicated that I had a working understanding of scientific content and that we shared institutional infrastructure. Credentials such as funding from scientific agencies or authorship of scientific talks or articles can signal to a potential collaborator that you are a member of the same epistemic community, as can doing your homework on their research and professional profile before you meet. Scientists, like many Humanists, find common ground with each other over shared subdisciplines, recognition of journal names and affiliations, attendance at the same conferences, and support from the same funding agencies. By learning about and engaging with these institutions, you can indicate your merit as a collaborator.

In a similar vein, in my many experiences explaining my research to scientists and initiating collaborations since my initial meeting with Jill, I have developed an elevator-pitch overview of what philosophy of science is, with the



intention of demonstrating its value to scientific research. This cuts off the most common misconceptions of my work, namely, that I am an ethicist, that I am anti-science, or that my research employs the Continental tradition in philosophy, as many STS researchers' work does. My spiel usually starts with the explanation that philosophy of science is about how scientific knowledge works: what allows researchers to trust the results of an experiment, how different scientific theories interact, what is considered the ultimate goal of scientific research. I find it works best to give a playful example, such as pointing out that if the goal of science is to say how the world really is, it would not be unreasonable to have a scientific discipline devoted to counting the number of blades of grass on my front lawn.

While my collaboration with Jill began within a student–teacher dynamic, most of the collaborations I have built with scientists have begun between colleagues. These typically start with a brief, in-person exchange at a meeting or event where faculty from multiple departments have gathered, or, less frequently, with a targeted email. In my current position, science departments have approached me about sharing my research in their weekly seminars, partly as an inexpensive way of filling their talk schedule. These have led to collaborative discussions, grant proposals, and shared mentoring of students.

The first of these talks took place because I met a materials engineer at a university event. We shared research interests and arranged a one-on-one meeting to discuss research, whereupon he invited me to speak at his department's seminar. In subsequent meetings with scientists across campus, I was then able to let them know I had a seminar prepared, which has led to a few more talks, many more meetings, the development of a grant proposal, and a few extra science students in my classes. In giving talks to scientific audiences, I typically take a cue from science talks I've attended and, rather than sustaining a philosophical argument through 45 minutes, spend my time describing two or three of my research projects and explaining why these research results are relevant to their work. I also always use slides, and I try to make the slides more visual than they would be for a conference talk in philosophy.

I initiated most, but not all, of my present collaborations. I prepare for a first meeting by setting aside time to learn about my potential collaborator's research. I find specific points of contact between their research interests and mine that will help me to explain my research in terms they both understand and care about. I try to familiarize myself with as many pieces of jargon ahead of time as I can, so that I don't wind up slowing down the conversation and making myself look ignorant by asking for vocabulary clarifications. In initiating collaborations, it is often more important to convey that you know what your potential collaborator is talking about than it is to convey that you know what you are talking about.

For instance, I recently met with a traffic engineer who is interested in whether philosophy of science can help his department to prepare for the



societal changes that will accompany the coming self-driving vehicle revolution. My research is well outside this area, and I don't expect to get closer to it any time soon. But I find the subject interesting and, in general, I make a habit of taking meetings with new potential collaborators, even if I am not sure what will come of it. In prepping for the meeting, I learned that in his world "ITS" stands for "intelligent transportation system," which encompasses everything from self-driving cars and subways that send text alerts about schedule changes to automated trucking weigh stations for trucks on the highways. I did not do any preparation to determine what is out there in philosophy of science on the specifics of the particular kind of futurist questions he had. We ended up talking for more than an hour about the potential for problems such as socioeconomic stratification and job loss associated with automated transportation, as well as benefits like empowerment and improved mobility for the presently immobile. Throughout, I was able to draw on my knowledge of value-laden science, intersectionality, and the history of unethical scientific enterprises in order to contribute to the conversation. As a result of our conversation, he agreed to give an address at an upcoming conference on socially engaged philosophy of science, as a way of advertising the set of problems he is concerned with to a wider philosophical audience.

Together, these anecdotes suggest a need, in the initiation of collaborations, for a type of flexibility that is sometimes uncharacteristic of philosophers. To borrow from a source thoroughly outside the analytic tradition, it is useful to think of these strategies as a way of attaining the Zen principle of "beginner's mind" by taking oneself out of the typical patterns of expectation and inferential paths common within the discipline. I prefer this analogy to the economic metaphors of trading zones and exchanges of ideas that are usually associated with interdisciplinary research.

## Collaboration as a Student

Returning to the collaboration with Jill, recall that it began in her classroom. It was an upper-level undergraduate course, but I put more time into it than I did most of my graduate classes that term. The class was deeply interesting; eventually, the subject matter would become the central scientific focus of my research. During class, I got to know Jill better by participating actively and attending office hours, both to ask clarification questions and to test out various epistemological inquiries I had about nanomaterials. I'd tried this technique with other professors of previous science classes with little success. While most of them thought the questions I had were thought-provoking, my queries did not ultimately impact their research, and so were not a productive way for them to spend their time.

For instance, before taking Jill's class, I had taken a class with another chemist who worked on nanoscience, and I had asked him conceptual questions about



the materials we studied. He was kind and engaged during his responses, but my questions never excited his curiosity. As an educator, he was invested in helping me learn, so he would think through a conceptual question and try to provide an answer, or indicate what factors would affect his answer, but he never took the questions and ran with them.

There are two lessons here. First, there will be more unsuccessful attempts at collaboration than successful ones. That is expected. Second, if you can find questions that are impactful to scientists, they are more likely to spend time thinking about them with you. Luckily, questions that are impactful to scientists are, in general, better questions to ask in philosophy of science anyway, so this strategy is effective—if you can figure out how to find impactful questions.

Unlike my previous attempts, asking Jill conceptual questions about nanoscience turned out to be fascinating and productive for both of us. Some of this has to do with the nature of nanoscience, some with Jill, and some with me. Nanoscience is a young and developing discipline in which the ways of conceptualizing various material properties and behaviors are not yet deeply entrenched in the scientific community. So when I asked whether individual nanoparticles are molecules or not, the question did not have a clear answer—and the absence of a clear answer was interesting both scientifically and philosophically. It led Jill to conceptualize nanomaterials as occupying a neither-fish-nor-fowl space between molecules and crystals, which explained why tools from both molecular and crystal theory could be used to predict certain nanoscale material behaviors.

This exchange marked the first stage of our collaboration. Even while I was interacting with Jill as an instructor, she saw my research questions as valuable and interesting, and she wanted to work with me to solve them, rather than simply seeing them as someone else's interests. With the other professor, the questions were always mine, and once he had provided as much information as he could, he dropped them. Jill held on to them, and in doing so gave me my first taste of what it was like to work with a scientist, rather than just read and write about science. It was thrilling, and it motivated me to think more deeply about the problems the questions were raising. This early interaction became the inspiration for my research career: I had found a subject area that sparked my curiosity, and a set of questions that an actual scientist cared about and wanted to solve with me. Jill's participation stoked the flames of my dissertation.

## Residency in Jill's Lab

At the end of the semester, I met with Jill again to ask how I could continue to work with her. Coming from a fairly traditional philosophical background in terms of research-relationship structures, the only way I had interacted with professors outside the classroom was in one-on-one meetings, in reading groups,



and at talks and conferences. Coming from a fairly traditional scientific background, Jill's go-to answer was to have me come sit in on research meetings with her lab, a group comprised of 2–4 undergraduates, 4–8 graduate students, and 1–2 postdoctoral students, which met weekly to discuss progress on the lab's various research projects and hear an extended presentation from one member. Presentations were assigned on a rotating basis, and Jill added me to the rotation. It would never have occurred to me that this would be a way of engaging with scientists, and it quickly became a formative experience.

There is no generalizable lesson here for my role in this development other than that sometimes you can get really lucky, but it is worth mentioning that if you can get yourself embedded in a research lab, you should. In addition to attending weekly meetings, I was invited to open house events and added to the lab calendar and email list. I learned who worked where in the lab and came to know what the various instruments did. I was eventually given the keycode to work in the offices. After a while, I was listed on the lab website as their "Resident Philosopher."

Participating in the life of the lab changed the way I thought about the reasoning processes behind scientific research. It allowed me to witness the inherently collaborative nature of scientific research in a way that no amount of reading about the social construction of scientific knowledge, or reading published scientific papers, could. It gave me immediate access to expert assistance in understanding the details of experimental setups and characterization techniques, significantly decreasing the amount of time it took me to get up to speed on the mechanics of a piece of theory or experiment. Most importantly, though, it let me see how much science doesn't get published: not only the failed experiments, but the figures that are painstakingly drawn and then discarded when they don't land with the lab audience, the follow-up trials to confirm or disconfirm a suspicion about a particular synthetic pathway, the spirited debates about what theoretical model best captures and explains an observed pattern, and even the semantic questions about how to name a new nanoscale architecture. These are all topics that are the subjects of papers and research programs in STS disciplines, but no amount of reading even detailed descriptions of the activity behind a publication can substitute for witnessing and participating in it. My research is not about the activity of laboratory life; it is about scientific reasoning. However, I could not write about scientific reasoning the way I do without having spent years witnessing it in action.

My first few times at lab meetings I acted as a non-participant observer, taking careful notes not only about the content of the presentations but about the way members of the lab interacted and how they approached their research questions. This was not a fruitful approach, for two reasons. First, I did not have the social science background to enact this observation in a systematic or insightful way and, second, I did not have the chemical background to follow many of the discussions in the lab meetings.



Realizing this, I changed tactics and, like the philosophers of old, started asking questions. I asked clarification questions about the mechanics of instruments and experimental protocols. I asked why a particular result led to the need for further experiment. I asked what parts of a diagram were to scale, and what parts were merely schematic. The collaborative, constructive atmosphere of the lab meetings boosted my confidence to ask varieties of questions that I could not have had answered by the publication record, and the ability to seek answers to these questions generated unique insights into the nature of scientific reasoning.

Most of my questions centered on the assumptions and inferences behind a particular piece of scientific reasoning, or about why a researcher was thinking about a problem in a particular way. These became known in the lab as “Julia questions,” and other members of the group started asking them as well. These kinds of questions became a hallmark of my collaboration with the lab. They led to a number of the research projects in my dissertation, as well as to short essays in scientific journals and refinements in experimental protocols. I still recall fondly the day about three years into the collaboration when, during a lab meeting, one student asked another a question about how to understand part of a diagram. I couldn’t help but feel proud when the student’s response began, “That seems like an epistemological issue.”

While it was never our primary intent, these questions occasionally contributed to experimental design. The biggest tangible contribution I made to the advance of a particular experiment came from a relatively innocuous question about how the experimenter was thinking about the material he was trying to make. A graduate student was building an experiment to test some of the mechanical properties of silver nanorods, that is, how they respond to stresses and strains. He had developed a complex protocol to enact the test, and during a lab meeting presentation, he reported some difficulty in determining the force needed to bend a rod. While other members of the lab were asking questions and offering suggestions about changing the protocol, I asked about how the student was modeling the mechanical forces in the experiment: what theories or material parameters he was relying on in order to determine the threshold forces that he needed to get out of the chemical interactions between the coatings. In particular, I was interested in what I saw as a mismatch between two pieces of the experiment. The student was drawing from two competing theories of matter—continuum and molecular mechanics—to develop the protocol, and it turned out that this was affecting his ability to construct a model for measuring the bend of the rod.

The effectiveness of continuum mechanics is a particularly thorny problem for philosophers of the physical sciences, and the problem had never seemed so vivid as it did here in the middle of a lab meeting, when a totally new material was being developed and modeled by a continuum mechanical model—and it wasn’t behaving the way the theories said it should. This problem became a



preoccupation of my research, even as it changed the direction of the experiment. The question I posed to the student was about whether continuum mechanics even applied to the nanorods in this experiment. My concern was that, because continuum mechanics assumes uniform bulk behavior and ignores surface interactions, and because the nanorods' behavior was, like many nanomaterials, disproportionately influenced by the behavior of its surfaces, the theory would fail to describe the predominant behavior of the nanorods. This question reframed the entire experiment and forced a re-evaluation of the whole protocol. Here, it turned out, was philosophy of science having an immediate and tangible impact on a particular piece of research, above and beyond affecting the general tenor of discussions in the lab.

Like a lot of real science, too, the next chapter in the experiment's history was something other than a celebratory triumph that ended with a high-profile publication and a revolution in research: while the reformulation helped to advance the experiment, the protocol still did not produce a reliable bend in the rods that reached Jill's standards for publication. Additional external pressures affected the student's research activity and the experiment continues to lie "dormant," to use Jill's word, until the right student or the right funding or the right theoretical motivation arises to pursue the protocol further. In this respect, the situation is not so different from philosophy, when articles can sit in tucked-away folders for years, awaiting reduced teaching loads, the right publication venue, or the missing piece of an argument.

An important upshot of this story is that, because the experiment never made its way into the publication record, I would not have encountered it if the publication record were my only access to scientific research. This experiment has become something of a touchstone for me, because in it are three of the central tenets of my research: that the materially different role of surfaces in nanomaterials impacts how we characterize, understand, explain, and manipulate those materials; that scale plays an explanatory role in the properties and behaviors of nanomaterials; and that constructing theories in philosophy of science using primarily well-tested and successful pieces of science (described after the fact in the publication record) has led to a variety of oversights among philosophers about the nature of scientific reasoning. For present purposes, this story is evidence of the unique benefits conferred by a field philosophy approach.

Likewise, even though it never made it to publication, this experiment is an instance of philosophy of science materially impacting the course of scientific research. My question led the experimenter to change his plans for refining the experiment by revealing an avenue of investigation that the rest of the lab had not considered. Jill and I have talked about this incident a number of times and she believes—and I am inclined to agree—that the lab would likely have reached a similar place of revisiting the computations that led to the protocol's specifics even if I had not been in the room, but that it would not have originated from an epistemic concern about the exportation of information between



atomic and continuum theories. Chemists use mismatched theories all the time because it works; telling the story of why it works is a job for philosophers. In this case, though, the assumption that it would work broke down because of the scale of the materials in the experiment, which generated puzzles for myself and the chemists that have since impacted the shape of both our research programs.

During my residency in Jill's lab, the nanomechanics experiment was the most poignant moment of philosophical questions impacting both scientific and philosophical research. However, plenty of other questions, both philosophical and scientific, impacted both our research programs from that time. I was frequently surprised which of my questions were interesting to the lab members. This feedback had a significant impact on the kind of researcher I became and the kinds of philosophical problems I wanted to answer. It also shaped the way I think about what the relationships between philosophy and science, and between philosophers of science and scientists, should be.

## Varieties of Collaboration

During the three years I spent in Jill's lab, we experimented with other modes of collaboration beyond my weekly participation in lab meetings. Some worked very well, resulting in new research activities or insightful conversations, or providing other benefits to one or both of our careers. Like the experiments in the lab, though, plenty of our experiments in collaboration did not bear fruit.

It worked well when I used my presentation time in the meetings to give overviews of a particular domain of history or philosophy of science that was relevant to the lab's research—for example, an overview of the arc of research in chemical bonding in inorganic materials from the early days of the quantum theory of chemical bonds to the present, or an overview of the realism debate, or of inter-theory relations in the physical sciences. It worked extremely well when Jill joined my dissertation committee as my external reader, and she became one of my primary mentors in the dissertation. Her expertise assured my philosophical readers that I was representing the science accurately, and her curiosity about conceptual questions often inspired new directions in my research. And it worked well when I worked with a couple of her graduate students to improve the broader impacts narratives in their grant applications, advising them on how to “zoom out” and think about the potential impacts of their research on human lives outside the lab, as well as helping them to outline their narratives.

It did not work well when I developed a qualitative-analysis style survey to determine the role of hypotheses in the experiments done in the lab. Even though I recruited social scientist colleagues to help me design and analyze the survey, the results did not tell me anything I could use in my research because I did not have the training to translate the data into elements of the kind of



argument I knew how to make. One lesson I learned over and over was that contributing to the lab as a philosopher was distinct from contributing as an STS researcher. That said, it also did not work particularly well when I presented on my own research in lab meetings as I would to an audience of philosophers, since in those presentations I devote a lot of time to explaining the science, and the science was familiar to the lab. Finally, it did not work when Jill and I tried to build a wiki together to share information about experimental protocols such as the one described above. We had a hope that we could improve accessibility for procedural information that did not make it into the publication record, thereby broadening and diversifying the community of researchers able to perform experiments in nanoscience. The idea was a good one, we both still believe, but there were simply too many barriers to getting it off the ground, since neither of us were accomplished programmers or wiki editors.

There is a pattern behind these successes and failures. When things went badly, it was usually because one of us, either myself or the scientists, was trying to be something other than what we came into the collaboration to be: me, a philosopher, and Jill and the lab, nanochemists. The times I tried to employ methodology from the social sciences, I wound up with pages of scribbled observations or piles of survey data, neither of which I could transform into philosophical insight. The times Jill's lab tried to play the philosophical audience, their feedback was more about how I was introducing topics in nanoscience than about my philosophical arguments. When we got together and tried to be some combination of coders, textbook writers, and community organizers, even the best of intentions could not rescue our efforts from falling flat.

On the other hand, our successes came when we were true to our distinct disciplinary trainings and interests, and when we were able to recognize, through the lenses of those backgrounds, something of value to one or both parties being offered across the aisle. Philosophers of science are explicitly trained to seek out the epistemically and ontologically puzzling in pieces of scientific research, so I knew going in that Jill and her lab, by virtue of doing interesting science, had things to say that I wanted to hear. It was an interest in the philosophical puzzles of nanoscience that led me to her classroom in the first place, and I had no difficulty finding the import for my research in what the lab was doing.

For Jill and the chemists, though, being able to recognize the value of philosophy of science in general, and of my research in particular, was not something to which their backgrounds had predisposed them. As discussed above, Jill was naturally curious and collaborative about conceptual questions, so I was able to gain a foothold with her. For the rest of the lab, it was easier for them to see the value in "Julia questions" than to get interested in questions of reductionism and realism. While that fact would have surprised me in 2011, it seems obvious today, since the conceptual questions I asked about the lab's experiments did



sometimes have direct bearing on how research was carried out—and even when they didn't, they were questions about a subject, namely, the lab's research projects, in which the other lab members were already invested.

## **Life as Colleagues: The Collaboration after Residency**

The activities described so far took place during my residency in Jill's lab, which came to a close in the spring of 2015, once I left Pittsburgh. In the years that followed my departure, we have sustained a number of collaborative activities. I still regularly consult Jill about research, asking clarification questions about a new piece of science I'm studying or asking her opinion on an article or experiment. Jill and one of her graduate students participated in an interdisciplinary workshop I hosted in 2016. And Jill and I, along with that same graduate student, co-authored a short piece about conceptual analysis in nanoscience for a scientific audience (Bursten et al. 2016). We also developed an interview-style article for a collection of essays based on the 2016 workshop. We no longer share our weekly research progress at lab meetings, but I keep up with Jill's research more closely than with many of my philosophical colleagues, because it continues to be one of the biggest influences on my own research. We both expect to continue working together throughout our careers, and our collaboration has evolved from its genesis in Jill's classroom into a lasting colleagueship and friendship.

One of the challenges I face in this collaboration, and in a number of my other collaborations, is being in the uncomfortable position of being the one who benefits more from our work, and thus being the one who depends more on the continuation of the collaboration. There are certainly benefits for Jill of collaborating with me: above and beyond the conceptual insights that initially led her to work with me, having a philosopher in the lab boosted her interdisciplinary credentials and, as individuals, we are both useful partners for each other in talking through research and professional problems. However, if she had not worked with me, little would have changed about the direction of Jill's research, whereas my work with Jill has impacted nearly every step in my research career since I took up residency in her lab.

After leaving Pittsburgh, I sought collaborative residencies in other chemistry labs with little success. This disappointment could be due to a change in career stage: as a pre-tenure faculty member I don't have the time to go to weekly lab meetings, because their timing often conflicts with departmental duties. I'm also simply not done with the research that has come out of my collaboration with Jill's lab, so I feel less pressure to find a new residency. Additionally, the times I have met with chemists and other scientists since leaving Jill's lab have shown me just how rare it is to find someone as curious about conceptual questions as she is.

However, I have discovered and created other modes of collaboration in my current position. In addition to those discussed above, I have taken up a number



of collaborations through pedagogical channels: I have served as an external committee member for Ph.D. students in biology and chemistry, developed an interdisciplinary course with members of the biology department at the University of Kentucky, and written about assignment design with a colleague in learning science. As a faculty member, too, I have more opportunities to interact with other departments around the university than I did as a graduate student, and my experiences collaborating with Jill have significantly improved my ability to communicate with my colleagues across campus.

As is the case with many successful interdisciplinary collaborations, the overall success of my collaboration with the Millstone lab was likely largely due to a host of particularities of personality, subject, and circumstance: the intellectual friendship between Jill and me; the interdisciplinarity and youth of nanoscience; the sheer timing of meeting a collaborator in graduate school, when my academic and personal lives allowed the time to go to extra meetings every week; and the good fortune of being in a graduate program that supported the collaboration. That said, I think there are some things that I, and that we, did well that generalize across collaborations between philosophers and scientists, and I have aimed to highlight these throughout this chapter.

## Acknowledgments

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## Notes

- 1 Dr. Millstone runs her lab on a first-name basis, and this chapter strives to convey the experience of working with her lab, so I will call her “Jill” throughout this piece.
- 2 One of the editors of this volume informed me this impulse makes me something of a geek, and I couldn’t agree more. Having a keen and unflappable interest in chemistry has given me the patience and motivation I needed to learn the science in this collaboration.

## Reference

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# 4

## PHILOSOPHICAL DIALOGUE AS FIELD PHILOSOPHY

*Michael O'Rourke, Stephanie E. Vasko, Chet McLeskey,  
and Marisa A. Rinkus*

Successful collaboration requires effective communication. Differences in professional, disciplinary, or cultural background can create opportunities for innovative collaboration, but they also create challenges to free-flowing communication. What follows is an account of a collaborative effort to develop philosophical tools designed to help meet these challenges—tools that are now in high demand and are being adapted and exported to new contexts. Our effort—the Toolbox Dialogue Initiative (TDI)—originated in the collaboration of scientists and philosophers at the University of Idaho (UI) in 2005, and it has affected thousands of researchers from hundreds of disciplines since then. That philosophy could be used to clarify the communicative problems of interdisciplinary teams is not at all obvious, especially to those who are familiar with the culture of academic philosophy. Perhaps it is less surprising, then, that the relevance of philosophy to interdisciplinary communication was suggested by graduate students outside of philosophy who were engaged in an Integrative Graduate Education and Traineeship (IGERT) project.

The IGERT Program was an effort by the US National Science Foundation to change the culture of graduate education so that students could acquire focused interdisciplinary training. The educational model developed with IGERT support by the UI and the Tropical Agricultural Research and Higher Education Center (CATIE) was distinctive in its emphasis on team-based integration (Bosque-Pérez et al. 2016). Students pursuing expertise in different agricultural and natural resource disciplines were grouped into teams of four and required to: (a) identify research questions integrating their different disciplinary perspectives that would structure their dissertation work, and (b) produce dissertations that included at least one chapter jointly authored by the team. Experienced interdisciplinary scientists did what they could to ensure that all the



conditions were ripe for success—prior planning, faculty and institutional commitment, financial support, and mentoring resources were organized and made ready for the students.<sup>1</sup> But even so, and not surprisingly, the students met with difficulties.

Challenges are manifold when you pursue interdisciplinary research, but one that stood out for the UI-CATIE teams was the difficulty of identifying ways of combining their disciplinary perspectives. In the interdisciplinary literature, this issue is commonly associated with linguistic differences, such as finding that the same term is used differently by representatives of different disciplines (e.g., Bracken and Oughton 2006; Eigenbrode et al. 2007; Donovan et al. 2015). But the source of the difficulty cuts deeper than language. Patterns of terminology reflect deeper commitments, such as foundational beliefs about what makes a research question puzzling, or core values that mark certain research objectives as more desirable. The students needed resources they could use to identify their foundational beliefs and values and coordinate them, effectively mapping the space of conceptual similarity and difference they occupy as scientists (cf. Lélé and Norgaard 2005). This was, in short, a job for philosophy.

TDI is a philosophically grounded project that grew out of the effort to harness philosophy to address the needs of students in the UI-CATIE IGERT project. TDI emerged from philosophical consideration of the challenges confronting interdisciplinary researchers who seek to integrate insights reflecting their disciplinary perspectives. Since 2005, we have investigated and facilitated communication and collaboration in complex projects which generally involve, if not center on, interdisciplinary academic research. Through structured, dialogue-based workshops designed with participant input, TDI encourages collaborators to articulate implicit aspects of their research and practice worldviews in order to build mutual understanding through collective reflexivity. Understood as a philosophical effort, TDI is a signal example of field philosophy, deploying philosophy to address specific communication problems in concrete contexts and working with a wide range of academic and non-academic partners to build collaborative and communicative capacity.<sup>2</sup>

Currently based at Michigan State University (MSU), TDI has conducted more than 300 workshops with a wide range of partners, many of whom have been interdisciplinary research teams engaged in complex scientific projects. Recently, TDI has expanded its range of partners to include groups such as development organizations, business forums, and academic centers. This expansion is driven by the recognition that the communication problems we can address by talking about them, in a structured way, are not limited to those that afflict complex research teams.

After describing the origins of TDI, its mechanics as a research and outreach project, and its philosophical context, we present a case study involving Toolbox workshops designed to support organizational strategic planning. A common exercise for complex organizations, strategic planning is a systematic



attempt to control the future actions taken by an organization so that it achieves the objectives which constitute its mission. When creating plans for an organization, it is critical to identify the commitments, constraints, and core beliefs and values of those who will engage in future decision-making. TDI has worked on strategic planning with several partner organizations, adapting the Toolbox approach to frame dialogue among affiliated stakeholders to advance means–end deliberation about their future together.

In describing these efforts, we consider the conditions that proved favorable for engaged, successful dialogue as well as those that undermined progress. We also critically discuss the changes made to the Toolbox approach in moving from a research-focused to a planning-focused context. We close by considering a few lessons we have learned by taking philosophy into the field in the form of the Toolbox approach.

## The Toolbox Dialogue Initiative

### *What Does TDI Do?*

TDI's principal work involves developing and running Toolbox workshops with partners and then evaluating these workshops based on collected data. A process-focused intervention, the Toolbox workshop engages participants in structured dialogue designed to achieve three learning outcomes: (1) identify core beliefs and values that guide the research or practice of the collaborators, influencing it in ways that reflect differences in training and experience; (2) share core beliefs and values by articulating them—perhaps for the first time—and subsequently enabling the collaborators to learn more about how each other operates; and (3) coordinate core beliefs and values through dialogue, negotiation, and compromise. The duration of a Toolbox workshop is, on average, three hours and includes a brief introduction, 60–90 minutes of dialogue structured by a survey-like instrument, a co-creation activity, and debriefing.

The “Toolbox” instrument, a survey-like tool completed both before and after the dialogue, structures the dialogue by introducing the topics for discussion in the form of “core questions” and “prompts.” Core questions are open-ended questions that introduce a theme for discussion (e.g., *Do values negatively influence scientific research?*) and prime participants for the 6–8 rating response prompts (agree = 5, disagree = 1) that follow and develop the theme. The prompts are probing statements written to provoke individual reflection and group dialogue (e.g., *Objectivity implies an absence of values by the researcher*). A core question and its associated prompts constitute what we call a *module*. A Toolbox instrument comprises 3–6 thematic modules that represent topics of importance to the participants.

Since the overall goal of structured Toolbox dialogue is enhanced mutual understanding of a team's core beliefs and values, it is crucial that the instrument



structuring the dialogue highlights themes that are relevant to that team. The teams we work with have addressed a range of academic and non-academic problems and typically include heterogeneous perspectives that reflect different historical, socioeconomic, epistemic, and material relationships with their specific problem. A team's problem functions as a lens, bringing into focus aspects of the different perspectives that should be discussed in a Toolbox workshop, which can differ dramatically from team to team. In light of this reality, we have designed several versions of the Toolbox instrument and work closely with partners to design instruments that meet their needs, which can include tailoring existing instruments or creating them entirely from scratch.

Participants in Toolbox workshops typically have had little exposure to philosophy, so we ask that they prepare for a workshop by reading about the Toolbox approach to familiarize themselves with its philosophical dimensions (e.g., Eigenbrode et al. 2007; O'Rourke and Crowley 2013). The workshop opens with a brief overview of TDI and logistics for the session. Ground rules are established at the outset to ensure that all participants are afforded opportunities to contribute to the dialogue and feel comfortable in doing so. Participants then complete the Toolbox instrument for the first time before being invited by the facilitator to begin the dialogue from any point in the instrument. Because the dialogue is meant to focus on participant interests, our approach does not mandate that participants start at the beginning or even discuss every prompt in the instrument. Participants often start with a prompt about which they have a strong view or are curious about the views of others. The instrument facilitates much of the discussion, with the facilitator only stepping in if the discussion stalls or gets too far off track, or if the discussion ground rules have been violated.

After the dialogue has come to a close, participants complete the instrument for a second time before being led through a co-creation activity. A co-creation activity is an interactive activity that builds on Toolbox dialogue by expanding on the themes discussed through brainstorming, mind-mapping, drawing, etc. These activities are often designed to create a product, such as drafting a team glossary, a group mission/vision/goals statement, or a "next steps" document. If desired by the partner, TDI writes a report that combines data from the Toolbox instrument, the recorded dialogue, and the co-creation activity. The report highlights themes from the dialogue and makes recommendations based on partner goals for the workshop. TDI also meets with partners after the workshop to discuss the report and reflect on the experience, and, in some cases, to plan for future workshops.

### ***How is the Toolbox Approach Philosophical?***

The initial article describing the Toolbox approach is entitled, "Employing philosophical dialogue in collaborative science," which suggests that participants



in Toolbox workshops sit around and talk philosophy with one another (Eigenbrode et al. 2007). However, the conversations typically involve non-philosophers and rarely cover topics in a way that would strike professional philosophers as philosophical. When the workshops involve collaborating scientists, the dialogue tends to focus on science and, in particular, on their specific scientific projects. What, then, qualifies these workshops as *philosophical*?

There are several answers to this question. The first is related to the origins of the Toolbox approach described above. As we noted, the UI IGERT project was noteworthy for the aggressive approach it took to integrative education, teaming up Ph.D. students to develop sets of thematically integrated dissertations (Bosque-Pérez et al. 2016). Early in the project, the students requested a seminar on philosophical aspects of interdisciplinary research, thinking it might help them identify techniques for integrating different contributions within their teams. Specifically, they suspected that the abstract nature of philosophical inquiry, combined with its analytical tools, might enable seminar participants to identify similarities among their disciplinary perspectives. Close consideration of this suspicion led to the development of the Toolbox approach, a philosophically structured way of enabling collaborators to identify their disciplinary similarities and differences.

Second, philosophical *concepts* figure importantly into the Toolbox approach. Early versions used a Toolbox designed in an explicitly philosophical fashion, drawing on concepts from the philosophy of science, epistemology, metaphysics, and value theory (O'Rourke and Crowley 2013; Looney et al. 2014). More recent versions of the Toolbox, including the one used in the strategic planning workshops described in Appendix below (p. 62), are designed with attention to the specific, contextual needs of the partner, but even so, the analysis that features in their design is explicitly influenced by philosophical conceptions of knowledge, normativity, and ontology. Motivation for this design approach is two-fold: (1) the desire to focus participants on the norms that govern how they think and act in the context of their common project, and (2) recognition that how collaborators classify and categorize their common experiences can be a source of divisive disagreement unless it is made a common focus of consideration. The prompts that result often focus on concrete issues that matter to participants—e.g., interdisciplinarity, authorship, and even stormwater management—but they are set against a philosophical background that establishes them as contestable in relation to one's core beliefs and values.

Third, philosophical methods are key to the development of the prompts. The development process involves finding issues that divide collaborators and then abstracting away from context-specific formulations toward more inclusive formulations. The first step is *analytical*, involving assessment of bigger project themes to determine fundamental conditions that can be made the focus of dialogue. The second step is *abstractive*. Instead of prompting workshop participants to talk about, say, whether hypotheses are required in biology or environmental



science, we focus them on whether they are required in scientific research more generally. This represents one way of looking at an issue (namely, the role of hypotheses in scientific research) that can be regarded as common ground for scientific collaborators, and they are invited to react to it in a way that is grounded in their own scientific practice.

There are also teleological reasons for seeing the Toolbox approach as philosophical. One traditional objective for philosophy has been the creation of a synoptic, integrated view of the world, drawing on findings from other disciplines. Toolbox dialogues are oriented toward a similar objective—they are designed to increase mutual understanding among collaborators and thereby support production of a coordinated project perspective. They pursue this end with philosophically informed prompts that spur reflection on assumptions and patterns of thought within individuals and the team. Participants are encouraged to explore how others might have read a prompt, how they came to different conclusions, and what these differences could mean for their collaboration. Ideally, a Toolbox workshop participant will come out of the experience with a better understanding of their own research position as well as those of their colleagues. While there are other goals that a typical workshop seeks to achieve, reflective analysis by a team of its complex set of heterogeneous project perspectives is certainly one of the goals and is philosophical in nature.

This way of highlighting the philosophical character of the Toolbox approach could be taken to raise ethical questions, such as whether we are relying in our work on the ends (e.g., enhanced mutual understanding among project collaborators) to justify the means (e.g., structured dialogue about specific topics), or whether we are adopting an uncritical faith that our method always generates ethically justifiable results. It is true that we typically reverse engineer the prompts in light of the specific goals of a workshop, and that we do this confident that our approach can help a team be more effective. Even so, three points mitigate these concerns. First, the “ends justify the means” criticism typically applies when the means involved are ethically problematic, but it is not obvious that structured dialogue of the sort we facilitate is ethically problematic. Second, the ends of specific Toolbox workshops and the means used to pursue them are identified in collaboration with our partners, ensuring their knowledgeable, participatory endorsement. Third, we are mindful that probing dialogue about foundational commitments can result in harmful disclosures; given this, our workshops are constrained by a code of conduct, generated with the participants, that acknowledges the potentially harmful effects of power dynamics, hot topics, and other aspects of interpersonal communication.

A final way of answering the metaphilosophical question about the Toolbox approach is to call attention to our interest in contributing to the traditional philosophical literature. The research dynamic of TDI is structured by a feedback loop: as we have noted, philosophical concepts and methods inform our facilitative work, and the data we collect while conducting workshops serve as



input into our research in epistemology, philosophy of science, and philosophy of communication (O'Rourke and Crowley 2013; Crowley et al. 2016). Commitment to this feedback loop entails a complex dissemination strategy according to which we publish broadly in scientific venues to report evidence for the effectiveness of the Toolbox approach to potential partners, as well as in traditional philosophical venues to demonstrate the philosophical relevance of reflection on interdisciplinary activity.<sup>3</sup>

### ***Why Consider the Toolbox Approach Field Philosophy?***

As a term of art, “field philosophy” was introduced into the philosophical lexicon by the University of North Texas Department of Philosophy. Frodeman (2008, p. 602) tells us that, as they use it, “‘field philosophy’ emphasizes the importance of entering into settings where philosophic claims are tested by real-world challenges, and that the insights reached in the field should reflect back upon one’s thinking with regard to the study.” As Briggie and Frodeman (2016, p. 28) emphasize, the notion of the *field* is a metaphor meant to highlight the practice of philosophy “in an active and participatory sense with non-philosophers, under real-world conditions.”

Field philosophy, then, is a domain of philosophical practice that extends beyond philosophy’s typical home, the academic department. It emphasizes working with non-philosophers on philosophical aspects of multivalent (often interdisciplinary) challenges in ways that respect working rhythms and requirements that may seem foreign to academic philosophers. TDI’s work fits this description, although this may not always be obvious. We have argued that Toolbox workshops are philosophical, and the vast majority of participants in Toolbox workshops over the years have been non-philosophers. But it is not obvious that the challenges have always had that “real-world” flavor, where that means addressing extra or non-academic concerns.

Although many of our partner groups grapple with these sorts of challenges (e.g., climate change, sustainability, translational health science), many do not. TDI’s work with non-philosophers focuses primarily on aspects of their collaborative process. At first glance, collaborative process may not seem like one of “the concerns of non-philosophers” (Briggie and Frodeman 2016, p. 28), but we prefer to think of TDI as elucidating and addressing concerns our partners did not realize they had. Since the process of complex research or practice is difficult, especially when it involves different disciplines and professions, attention to it can pay dividends for teams working on a wide variety of challenges. Our primary objective, then, is to help increase the chances of project success for teams of non-philosophers regardless of the substantive challenges they tackle. For additional reasons for regarding TDI as a field philosophy effort, grounded in the definition supplied in Frodeman and Briggie (2016), see Table 4.1.



**Table 4.1** Classification of the Toolbox Approach as a Form of Field Philosophy<sup>1</sup>

<i>Aspect</i>	<i>Condition</i>	<i>Relevant TDI Characteristic</i>
Goal	Addresses philosophical aspects of stakeholder problems <sup>2</sup>	Addresses philosophical aspects of the collaborative process of complex research and practice teams in a workshop setting
Approach	Works with stakeholder problems	Focuses on the process of stakeholder collaboration involving non-philosophers, creating dialogues in which participants discuss the communication challenges they confront on their common problem
Audience	Develops responses for stakeholders	Develops process-focused intervention specifically for a partner team that is sensitive to their specific process
Method	Adopts a context-sensitive, bottom-up approach	Designs workshops for partners around issues that matter to them
Evaluation	Success is dependent on stakeholder reaction	Evaluates success relative to the goals set by partners for the workshop
Institutional Placement	Moves between academic and non-academic locations	Travels back and forth from academic to non-academic contexts in conducting its research program (O’Rourke and Crowley 2013; Crowley et al. 2016)

Notes

1 We use the definition from Frodeman and Briggie (2016). The “Aspect” and “Condition” columns specify the six characteristics Frodeman and Briggie (2016, p. 124) take to be “definitive of field philosophy.”

2 “Stakeholder” is the term used by Frodeman and Briggie. Within TDI, “stakeholder” refers to anyone who participates in a Toolbox workshop, which can include non-academics, non-philosopher academics, or philosophers. In general, the problems TDI addresses are related to cross-disciplinary process rather than traditional philosophical problems.

**Expanding Toolbox Applications from Research into Other Modalities**

***Going Further Afield with the Toolbox Approach***

Initially, we conceived of the Toolbox approach as something that would have value for any group of scientific collaborators who approached their project from different perspectives. At that time, we identified the approach very closely with the initial Toolbox instrument—the *Scientific Research* Toolbox instrument—which was designed from the top down using philosophical concepts and methods, as described above (O’Rourke and Crowley 2013; Looney et al. 2014). By using a top-down frame dividing the nature of the investigator



(i.e., the *epistemological*) from the nature of the investigated (i.e., the *metaphysical*), we believed we could map the space of scientific research collaborations no matter what their composition.

It did not take long for us to realize that our initial hope for this top-down, decontextualized approach was unrealistic. An early workshop with a health science team comprising clinical health scientists and bench scientists revealed that both the prompts and the workshop protocol were limited in ways that made them unhelpful. Specifically, the clinical scientists found the philosophy of science behind the Scientific Research Toolbox prompts to be too distant from their research concerns to warrant much engagement, and the open and rather flat nature of the lightly facilitated dialogue session meant that several clinical scientists did not participate due to the more hierarchical power structure of that particular community of investigators.

This experience awakened us to the need to be more responsive to the specificities of our partner groups. Although Toolbox dialogue is predominantly concrete and project focused, a dialogue structured by the more abstract and philosophical Scientific Research instrument tends to take longer to get down to concrete examples. While partner groups are interested in the reflexivity that emerges in Toolbox dialogue, many prefer dialogue structured in a way that is more obviously related to their own specific research. Once we recognized this, we began designing instruments that were more sensitive to local considerations while still being somewhat general—for example, the translational health science instrument (Schnapp et al. 2012).

However, even these more context sensitive instruments fell short of sounding the themes that mattered most to our partners, so we began developing instruments designed for specific project teams. This has created new challenges, e.g., finding the project-specific information we need to build instruments, and comparing very different workshops to one another for research purposes. Nevertheless, the decision to identify the core beliefs and values animating particular teams has been crucial to our expansion in the direction of community-based teams and teams that have non-research goals. The strategic planning workshops discussed below are an example of this, as they are designed with the MSU community of interdisciplinary scholars and educators in mind.

### ***Enhancing Process as the Common Thread***

Although we now work with a wide variety of groups—research teams, classes (undergraduate and graduate), academic communities (e.g., the MSU interdisciplinary community), and non-academic communities (e.g., local business forums)—a common thread that binds them together is the value dialogue has for them. If a team's success depends fundamentally on its capacity to integrate a number of different perspectives (Salazar et al. 2012; Piso et al. 2016), then Toolbox dialogue can have value for that team.



The importance of dialogue in the Toolbox approach underscores the ability of Toolbox workshops to do more than simply disclose and coordinate epistemological commitments. It is true that Toolbox dialogue is structured by conceptual (e.g., epistemological, ontological) commitments that frame collaborative deliberation, but the dialogue itself provides an opportunity to work on ways of communicating with one another that open up channels into alternative perspectives. It can be difficult to find ways to relate to collaborators in interdisciplinary contexts—the rhetorical landscape in these contexts is complicated by different communication norms and expectations that are typically neither manifest nor coordinated, impeding the smooth flow of information and the empathetic creation of bonds of mutuality. Dialogue supports modes of engagement that can help encourage relational connection, such as deep listening and back-channel signaling (cf. Traxler 2012). Deploying philosophy as a rhetorical frame for this discussion helps by motivating deeper reflexivity and perspective taking between collaborators (cf. Salazar et al. forthcoming).

A recent independent evaluation of the Toolbox approach conducted by the Western Michigan University Evaluation Center (WMUEC) indicates that 89 percent of Toolbox participants take Toolbox dialogue to have improved their understanding of their collaborator's research perspectives on their common project, and 77 percent feel more capable of collaborating with representatives from different disciplines (Western Michigan University Evaluation Center 2017). These gains in understanding and collaborative capacity position teams to recognize differences in perspective, a key determinant for successful project integration.

More specifically, a well-developed ability of teammates to recognize when they understand their common problem differently can enable fruitful project integration in several ways:

- 1 By allowing them to avoid unreasonable disagreements and agreements that are based on misunderstanding or confusion, this ability can help teams recognize disagreements that really matter.
- 2 By helping them recognize the various types of expertise in their project, this ability can guide efficient division of responsibility for various project objectives.
- 3 When the ability reveals incompatible points of view, it positions them to explore potentially creative ways to resolve the conflict. (Nemeth and Nemeth-Brown 2003)

Where group tasks revolve around knowledge integration, the literature supports the idea that systematic, formal interventions can be beneficial to group effectiveness (Okhuysen and Eisenhardt 2002). The Toolbox workshop is a formal intervention supporting knowledge integration through greater appreciation of the expertise in a collaboration, whether the participating teams are research oriented or more community oriented.



## Organizational Applications: A Case Study in Strategic Planning

In this section, we present an organizational application of the Toolbox approach. Using a case study, we chronicle the application of our approach to aid strategic planning and, specifically, the development of mission and vision statements. After describing our client and how TDI approaches workshops focused on strategic planning, we present the workshop structure and findings and then conclude with recommendations for conducting philosophically-infused workshops in the field.

### *Using the Toolbox Approach to Develop an Organizational Mission and Vision*

The MSU Center for Interdisciplinarity (C4I) was established in 2017 and initially described as “a unit that will advance interdisciplinary research and pedagogy at the University while preparing the next generation of citizen leaders to address the most challenging questions of our time” (Center for Interdisciplinarity 2017). This initial charge emphasizes the need for C4I to contribute to both research and graduate education, but its contributions are expected to be different from a standard research center. In addition to original research, C4I was expected to *facilitate* interdisciplinary research at MSU and beyond, which it would do in part through its close relationship with TDI.<sup>4</sup>

One of C4I's initial tasks was to develop a mission and a vision statement. Given TDI's interest in expanding our field philosophy approach into strategic planning, and the close relationship between C4I and TDI, it was natural for C4I to use the Toolbox approach in creating a mission and vision statement that reflected the needs of the MSU community. Mission statements focus on the identity and purpose of an organization, and vision statements focus on the future. The strategic planning literature underscores the importance of stakeholder involvement in the development of mission statements (e.g., Baetz and Beamish 1993; Carroll 1993; Baetz and Bart 1996; Grünig and Kühn 2018). According to Grünig and Kühn (2018, p. 48),

The mission statement ... can only fulfill its function as the normative framework of strategy development when it reflects the values and objectives of the important stakeholders. It is therefore recommended to carry out a stakeholder analysis before proceeding with strategic analysis and planning.

Based on this, we sought to develop the C4I mission and vision statements in the field. Workshops were offered to the MSU community (including graduate students, postdoctoral researchers, faculty, and staff) that featured a dialogue portion structured by a Toolbox instrument and a co-creation activity. The



instrument design for these workshops drew on TDI's previous work, particularly with interdisciplinary teams and graduate education, non-academic strategic planning, and community engagement. TDI also drew on expectations for C4I as expressed in the initial charge and related documents. This yielded an instrument focusing on the nature of interdisciplinarity, interdisciplinarity at MSU, and engagement with communities. (See the Appendix at the end of the chapter for the prompts in this instrument.)

The co-creation activity was designed to allow participants to give direct suggestions to C4I leaders. Participants were presented with the statement, "What do I want/need from a Center for Interdisciplinarity?" and asked to brainstorm as many ideas as possible. Ideas were then shared with the group and, in dialogue with the participants, organized into categories by the facilitator. The last step of each workshop involved completing a feedback questionnaire about the workshop experience.

### ***Mission and Vision***

These workshops yielded several categories of suggestions for C4I. Some themes raised by participants were expected, such as funding mechanisms, interdisciplinary consulting and training, and access to interdisciplinary resources. C4I also received feedback related to the idea of community building, such as providing space to work in, opportunities to network, and opportunities to receive (or provide) mentorship and feedback about institutional barriers at MSU. Participants also expressed a desire for culture change around interdisciplinarity and more support for interdisciplinary pursuits.

In addition to conducting its own research, C4I aims to serve as a resource for faculty, postdoctoral researchers, and graduate students in the College of Arts and Letters and across campus, as well as for partners in the local community and across the region. It serves as an advocate for researchers and scholars, consulting with teams, providing resources for and about interdisciplinarity, and creating opportunities for training, education, networking, mentorship, visibility, and funding both on and off campus. All of this is accommodated by the mission statement "*Strengthen and nurture interdisciplinary research involving the arts and humanities at MSU, as well as locally, nationally, and internationally*" which has its message expanded in the C4I vision statement that emphasizes leadership in facilitating interdisciplinary scholarship and interdisciplinary careers. The full mission and vision statements are available on the C4I website (<http://c4i.msu.edu/>). C4I expects its mission and vision statements to be living documents that continue to evolve with input from stakeholders.



## Conclusion

We conclude with observations and recommendations for those interested in pursuing field philosophy that are grounded in our workshop experience. As TDI practices it, field philosophy involves the delivery of relatively short, capacity-building workshops. Rather than being a form of embedded philosophy that involves philosophers working alongside non-philosophers as project members (cf. Tuana 2013), TDI personnel engage in facilitative interactions with the project team without becoming part of the team. Workshops are a brief but intense opportunity to interact in a focused and substantive way that can impart the value of philosophically structured dialogue without demanding a lot of a team's time. So long as philosophical input can be added to an ongoing project in a way that does not require a philosopher collaborator to manage it, workshops are a viable modality for field philosophy.

There are different roles that philosophers can play in this type of field philosophy. The principal philosophical contribution to a Toolbox workshop is the conceptual analysis that figures in the design of the Toolbox instrument. In addition, there is an opportunity for philosophical synthesis in the workshops themselves. In the workshops, we adopt a “light-handed” mode of dialogue facilitation that foregrounds the contributions of the participants and backgrounds the contributions of the facilitator, rendering the conversation more about the participants and more dialogical as a consequence.<sup>5</sup> Nevertheless, the facilitator is afforded the opportunity to make connections between dialogue topics and also probe responses to help deepen consideration of the focal themes. Our experience has put us in a position to make several recommendations related to the conduct of field philosophy, especially if it is workshop-based. We close with five:

**Acquire in-depth facilitation training.** The ability to deftly facilitate dialogues is crucial to the success of Toolbox workshops, as are additional skills developed in facilitation training, such as the ability to navigate hot moments in conversation, enable equitable participation, and manage the meeting space (e.g., ensuring Americans with Disabilities Act compliance). Unlike classroom teachers, facilitators cannot assume they will occupy an “expertise” position in the workshop, nor can they predict with confidence how power will be distributed in the room. For philosophers conducting workshops in the field, facilitation training can enhance skills in areas including (but not limited to) managing power dynamics, conducting effective meetings, negotiating solutions via different methods of consensus building, and participating in perspective taking.

**Augment philosophical training.** Current models of philosophical training at all levels—undergraduate, graduate, and professional—do not attend to the skills necessary for field philosophy. Due to their interest in field applications of philosophy, organizations such as Socially Relevant Philosophy of/in



Science and Engineering (SRPoiSE) and the Public Philosophy Network (PPN) would be well-matched venues for offering skills training, such as facilitation, to graduate students, postdoctoral researchers, and faculty. Graduate programs could integrate facilitation and community engagement training into their professional development experiences, and also develop internship programs similar to the Engaged Philosophy Internship Program currently offered at MSU.

**Support interdisciplinary research.** Interdisciplinary research is emphasized in the academy and has been the focus of a number of high-profile funding programs, such as the NSF IGERT program. Philosophy is in an especially good position to facilitate interdisciplinary projects—philosophers are often in a position to appreciate patterns across disciplines, including methodological patterns, conceptual patterns, and normative patterns. It can recognize where there are similarities and differences at an abstract level among the various contributing disciplines, and this can help the contributing disciplines find common ground. This is what TDI does with structured dialogue, but our way of operationalizing philosophy for the purposes of facilitating interdisciplinarity is not the only way to do this. For example, philosophers could play the role of the integration specialists that Bammer has described in her work (e.g., Bammer 2013).

**Build an interdisciplinary team.** In our experience, especially outside of academia, philosophy can be met with confusion or, worse, outright hostility. If field philosophy is conducted by an interdisciplinary team, as it has been with TDI, it can be easier to build trusting, collaborative relationships. In this vein, it is good to build an interdisciplinary team that embodies dimensions of diversity that go beyond expertise—e.g., diversity in gender and career stage. Facilitators who have diverse backgrounds and identities can be more sensitive to potential power dynamics among participants and their presence may encourage participants to feel more comfortable sharing their perspectives.

**Assess the work.** The value of field philosophy should be established both for traditional philosophers and for those with whom field philosophers work, but for different reasons. This is related to the “neither fish nor fowl problem” that field philosophers face—field philosophy is not traditional philosophy and so does not look like philosophy to traditional colleagues, nor is it science and so may not look like something that has value to add to non-philosophical projects. Assessment is a way of demonstrating the value of field philosophy for both communities, but it must take different forms. For traditional philosophers, publishing work in traditional journals can establish its legitimacy, and measured impact and influence on projects can establish its value for non-philosophers. This is exemplified by TDI, which publishes in philosophical journals and also regularly assesses its impact from the perspectives of its partners (e.g., Western Michigan University Evaluation Center 2017).

Over the years, we have been surprised by the number of people interested in field philosophy. TDI has expanded the size of our research and outreach



collective, giving a number of people, including a number of philosophers, an opportunity to add field philosophy in the form of Toolbox work to their CV. In particular, TDI has served as a training ground for field philosophers at all levels, many of whom have leveraged the experience to gain access to the next stage of their careers—e.g., admission to graduate school, appointment to tenure track positions, and receipt of tenure and promotion. Opportunities in field philosophy, such as TDI and others, represent an important innovation in philosophy that continues to enrich and expand philosophy's reach in society.

Appendix

The Toolbox Prompts Used in the C4I Strategic Planning Workshops

<i>Module Theme</i>	<i>Prompts</i>
Nature of Interdisciplinarity	<div>1 An interdisciplinary project can be successful even if no project member understands all parts of the project.</div> <div>2 Interdisciplinarity is key to successful teaching and learning about complex real-world problems.</div> <div>3 Interdisciplinarity is a meaningless buzzword.</div> <div>4 One cannot be an interdisciplinary expert without being a disciplinary expert.</div> <div>5 It is more difficult to be successful in an interdisciplinary project than it is in a disciplinary project.</div> <div>6 Your interdisciplinary research is not finished until it is communicated to the public.</div> <div>7 An individual can be interdisciplinary.</div> <div>8 STEM [Science, Technology, Engineering, and Mathematics] disciplines are unfairly emphasized over the arts and humanities in interdisciplinary research.</div>
Interdisciplinarity at MSU	<div>1 The possibility of funding is the best reason to engage in interdisciplinary research.</div> <div>2 MSU must present a common definition of interdisciplinarity.</div> <div>3 MSU should provide financial support for integrating the arts and humanities into interdisciplinary research.</div> <div>4 I would pursue more interdisciplinary work on campus if I had opportunities to meet other scholars from across campus.</div> <div>5 MSU's interest in interdisciplinarity is reflected in MSU's expectations of scholars.</div> <div>6 I know to whom I should talk about doing interdisciplinary research at MSU.</div> <div>7 If I had more support from my department, I would engage in more interdisciplinary work.</div> <div>8 There are interdisciplinary leadership opportunities available to me at MSU.</div>



Module Theme	Prompts
Engaging with Communities	<div>1 Scholars have as much to learn from community members as community members do from scholars.</div> <div>2 MSU should provide more internal funding to support university–community partnerships.</div> <div>3 Community engagement through the arts and humanities creates opportunities for unique interdisciplinary projects.</div> <div>4 Not all community engagement needs to involve research.</div> <div>5 MSU must focus on non-academic career training for graduate students and postdocs.</div> <div>6 MSU must offer collaborative interdisciplinary experiences for graduate students.</div> <div>7 Community engaged interdisciplinary research should be a priority for C4I due to MSU’s land grant status.</div> <div>8 MSU does a good job of integrating community members as active partners in research.</div>

Note  
Each prompt is associated in the instrument with a rating scale (1 = disagree, 5 = agree).

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Notes

- 1 Thanks to Stephen Crowley for this way of looking at the UI-CATIE IGERT model.
- 2 We know of no other extant, philosophically-based effort that pursues the same facilitative or research goals as TDI. There is a similarity, though, with Otto Neurath’s work developing and promulgating ISOTYPE, the International System Of Typographic Picture Education, as a resource for the “public communication of historical and statistical information” and, more generally, visual education (Cat 2014). Thanks to Evelyn Brister for calling our attention to the relevance of Neurath’s work, and to Brister and Eric Schliesser for discussion of his ideas.
- 3 Our two most-cited Toolbox papers—Eigenbrode et al. (2007) at 234 and O’Rourke and Crowley (2013) at 87 (Google Scholar, December 31, 2018)—have user profiles that support this strategy: 41.4 percent of the citing papers for O’Rourke and Crowley (2013) are explicitly philosophical by virtue of their title or place of publication, whereas only 6.8 percent of the citing papers for Eigenbrode et al. (2007) are explicitly philosophical. This is a reflection of their venues—O’Rourke and Crowley (2013) was published in *Synthese*, whereas Eigenbrode et al. (2007) was published in *BioScience*—and is a reason to publish work in philosophical journals if we are serious about having an influence on traditional philosophical practice. For more on our



interest in leveraging reflection on interdisciplinarity to contribute to the philosophical literature, see Crowley et al. (2016).

- 4 Although separate entities, TDI is dependent for administrative and financial support on C4I.
- 5 In an application of the Toolbox approach involving the responsible conduct of research, we have returned to a more engaged facilitation approach—one we have referred to as “Socrates in the room” (Pennock and O'Rourke 2017). This is consistent with the more didactic role of these “Scientific virtues” Toolbox workshops.

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# 5

## ETHICS LAB

### Harnessing Design Methodologies for Translational Ethics

*Margaret Little, Elizabeth Edenberg, Sydney Luken, and Jonathan Healey*

#### 1 Introduction

Philosophy is traditionally understood as a theoretical, abstract, and foundational discipline. This is not to say it does not care about the world. In an important sense it cares deeply, asking some of the most profound questions about the human condition, the nature of reality, and the normative architecture of ethics and epistemology. These include questions with pressing importance for the “real world”—the conditions of political legitimacy, the moral status of various creatures, our obligations to future generations. That said, it’s certainly true that much of the discipline’s work focuses on leveraging the conceptual clarity achieved by abstraction and idealization, and examining internal relations among concepts and systems of thought. This freedom from empirical constraints is essential for expanding our conceptual possibilities, but if philosophy stops here it risks limiting the richness—and reach—of the discipline. Elizabeth Anderson, for instance, has eloquently warned of the dangers of a philosophy insufficiently informed by the world and insufficiently motivated to take important advances to inform and improve the world (Anderson, 2015).

In a healthy response to such challenges, philosophy has begun opening its borders in a variety of important ways. It’s increasingly common for philosophers to join inter- and trans-disciplinary partnerships to try to solve empirical puzzles about the world, with philosophers of mind, for instance, on research teams with neuroscientists and psychologists seeking a better understanding of consciousness. Public philosophers work to communicate with or teach those outside the academy, writing philosophically grounded op-eds or teaching philosophy in prisons. Philosophical practitioners embed in working contexts to provide direct guidance and advice—for example, trained philosophers



working as bioethicists in hospitals to provide consultation services at the bedside.

This volume is concerned with another, arguably less well discussed, extension of philosophical work: harnessing philosophical inquiry and labor to develop real-world interventions. It is what this volume calls “field philosophy,” but we call—for reasons we will explain—“translational philosophy.” As philosophy looks toward this kind of work, we share the work of Ethics Lab. Launched in 2013, Ethics Lab has been developing a novel approach to collaborative ethics projects and ethics education by merging robust ethical theory with approaches borrowed from the field of design thinking. While it may seem like an unlikely pairing, we have found a deep affinity between philosophical ethics and the methodology of human-centered design. We believe our approach provides a helpful method that can activate philosophy, in general, and ethics, more specifically, to make an impact in the world.

In the following section we begin by describing Ethics Lab and its work in more detail, with a particular focus on the work with direct impact projects. We then pull back (in good philosophical fashion!) to address the theory behind our practice. In section 3, we explain what we mean by “translational philosophy”; in section 4, we explain what we mean by the field and concept of design as a methodology; and in section 5, we explain why we believe the latter can be so helpful to the former.

## 2 Ethics Lab

Ethics Lab is a center for creative ethics education and direct impact work at Georgetown University. Launched in 2013, the animating drive of Ethics Lab is to use ethics as a creative tool for making progress in the face of highly complex challenges. More specifically, we offer innovative philosophy courses, develop interdisciplinary exercises to infuse ethics across the curriculum, and conduct collaborative workshops to help research teams and organizations build ethics into their work. Our focus is on emerging, high stakes issues, including the ethics of digital technology, divided democracy, and bioethics. These are areas high in both complexity and novelty, in which ethical issues are often embedded—sometimes shrouded—in highly technical issues. Most of all, they carry an urgency that demands tangible results and not simply theoretical explication. These features, we believe, benefit from a philosophical lens that is agile, attentive, and creative, with a commitment to helping forge new pathways for responsible progress.

To pursue this perspective, we use a methodology that blends philosophical exploration with approaches adapted from design thinking. Our team is unique: philosophers with backgrounds in theoretical and applied ethics and political philosophy, together with design experts who have a commitment to designing for value. Our approach harnesses the insights and practices of both fields to



help students or research teams bring to the surface ethical issues embedded in contemporary problems, make explicit tacit assumptions about the context and what is at stake, and envision creative avenues for ethical impact.

The focus of this essay is our collaboration with partners who are trying to make a difference in the world. We work with a variety of partners, including academic research teams, policy makers, and organizations. Our collaborations develop out of our team members' work and expertise. As part of our research, we actively seek conversations with people—in the academy, government, industry, or non-profits—who are tussling with how to make practical progress in the areas we work on. The aim, always, is to leverage the Lab's combined expertise in philosophical ethics and design methods to enable collaborative problem solving through a values-based lens.

A helpful illustration is an exploratory bioethics project we worked on around trauma and birth. One of our ethicists had been working with an obstetrics and gynaecology (OB-GYN) bioethicist and an academic/clinical psychologist exploring how prenatal, labor, and delivery care can better meet the needs of women who come to pregnancy with a history of trauma. A significant percentage of pregnant women have experienced some traumatic event in their past, whether sexual, domestic, or violence experienced during military service. Given the highly intimate nature of prenatal care and delivery, emerging research was showing the extent to which clinical care in this setting could unintentionally re-traumatize patients, since prenatal care and birth are replete with unintentional triggers, including “encouraging” endearments such as “just relax, sweetie” (White et al., 2015). Colleagues in health care policy circles, we had heard, were starting to advocate the addition of “prior trauma” questions to the patient screening tools routinely used in questionnaires or asked by clinicians. Based on the OB-GYN and psychologist's research about and experience with trauma survivors, this was deeply worrisome. Encountering such questions out of the blue on a form—or worse still, being asked to share one's experience interpersonally—would itself be a trigger! What seemed to some health care practitioners as a promising solution was in fact a terrible idea.

We worked together with the full Ethics Lab team over a series of meetings to interrogate the core ethical concepts afresh and to explore new pathways for intervention. For instance, in one session, we adapted what designers called “journey mapping”—initially developed to optimize customer experiences and now used in a variety of contexts to understand a given embodied, sequential experience. Drawing out (literally—think of a table covered with butcher paper and markers) a sample experience of a pregnant woman at a neighborhood clinic (What does she see when she enters? Where does she go next? What might she encounter at the reception desk?), we identified places where triggers might happen unexpectedly. We pulled apart different intersections of autonomy and vulnerability. The design-inspired exercise sparked a discussion that



opened up potential unexpected pathways for developing a better intervention. We probed the assumption, for instance, of whether the solution is a screening tool at all. Perhaps a video resource would be better, anchored on women's stories that could be viewed by women in private, along with training for the health care providers on what not to assume.

As another example, we have recently worked with a group of academic computer scientists who are tackling the challenging issue of how to preserve privacy in the era of big data. Existing tools for protecting the privacy of individuals by de-identification or anonymization of data, it turns out, don't survive recent developments in the ability to aggregate large databases. One solution is to keep the databases sequestered from one another; but that forgoes enormous public good that can come from harnessing data, including, for instance, tracking drivers of social inequalities in order to advocate for better public policies. The team of computer scientists had developed an exciting new algorithm that can preserve higher degrees of privacy by intentionally introducing selected noise into the system—a mathematical invention that won the Gödel Prize in computer science (Dwork et al., 2017). Of course, noise comes at a cost: it reduces the informational utility one can get out of the datasets. How then to set the “privacy loss parameter”—a variable that encodes decisions about how to balance the trade-offs between individual privacy and the utility of data sets? Privacy is, at the best of times, a nuanced and contested concept, and here those philosophical complexities were matched by enormous technical ones, ranging from computational methodology to the discrete policies governing access to specific databases.

Ethics Lab ran a workshop with the researchers to consider how the formula itself should be implemented in specific real-world contexts. We first went through a series of quick, time-limited exercises designed to elicit the team's tacit understanding of the value of privacy versus informational utility, the types of considerations that the algorithm can protect (or not), and which *kinds* of informational risks different stakeholders—data subjects versus data stewards, for instance—might prioritize. Given that one important component of privacy theory indexes to “reasonable expectations,” we also had the group begin mapping the flow of information their specific project would involve, and annotating it visually for insights about the expectations of privacy that various agents might have. The aim was to generate a new set of considerations mathematicians should take into account as they try to set the privacy loss parameter, and spot value affinities that might suggest new opportunities for merging ethical and normative considerations as a key component of applying the mathematical formula.

In all of our collaborations, our aim is not just to identify the moral guardrails to which a project should be attentive—i.e., to identify what *not* to do. Our aim is also to help ethics be part of the solution space. We work to identify places where existing philosophical distinctions or concepts are relevant, where



issues challenge the limits of existing theory, and to collaborate to find pathways that can make a moral difference. We call this mode of working “translational philosophy.” In the next section, we explain why.

### 3 From Applied to Translational Philosophy

When philosophers think about engaging more fully with the “real world,” often the first thing that comes to mind is the concept of applied philosophy. This is, indeed, an important mode of philosophical work. Often unfairly caricatured as mere application of some extant theory to an issue in the world (“What would a utilitarian or Kantian say about famine, abortion, climate change?”), applied philosophy is richer and more important to the discipline than that.

Very roughly, applied philosophy can be thought of as philosophy that is interested in finding insight from, and contributing insight into, specific empirical phenomena, in ways that are particularly richly beholden to factual adequacy conditions. Applied philosophy involves making direct (rather than merely conditional) philosophical claims, about empirically real (rather than merely idealized) things in the world, and taking epistemic and moral responsibility for the implications that acceptance of those claims would carry for that world. The core claims of applied philosophy are ones whose success—as diagnostics, explanations, truths, or prescriptives—are strongly dependent on getting a rich set of facts right. The facts in question may be scientific, cultural, material, or institutional in nature. To be responsibly discharged, then, such work has to proceed with a credible understanding of salient facts, not just an intuition about what those facts might be, and a genuine literacy (at least) of technical, institutional, social, or other factors that saliently define the phenomena at issue.

Such work is deeply important. It ensures the discipline is concerned not only with formal models, but with assessing the adequacy of such models for explaining and navigating real-world phenomena. It ensures the discipline is fed not only from the power of idealizations and generalizations, but from a granular and empirically robust appreciation of fact and context. It serves not only as a corrective to test the intuitive adequacy of received concepts and frameworks, but as an engine for developing novel ones.

Applied philosophy, then, is as critical to the discipline as its more theoretical counterpart. Having said that, it is a different mode of expanding philosophical inquiry’s connection to the “real world” that we are interested in. Borrowing a distinction well known in the sciences, we do not want to distinguish between theoretical and applied work, but between applied and *translational* work. Let’s take a look.

The concept of translational work is familiar in the sciences. As the National Institutes of Health (NIH) defines it, translational science is about moving novel discoveries from basic research into new interventions in the world. Its National Center for Advancing Translational Sciences, established in 2012, has the



mission of supporting the translation of health-related discoveries: “turning observations in the laboratory, clinic and community into interventions that improve the health of individuals and the public—from diagnostics and therapeutics to medical procedures and behavioral changes” (National Center for Advancing Translational Sciences, 2019). The National Science Foundation also has special translational programs, which support the “conversion of ideas into useful products and services” (National Science Foundation, 2010, 1).

Put in teleological language, the end goal of translational science is not about understanding something new about the world, but about creating a practical intervention to address a real-world problem. The goal is to make effective progress in a way that can have a direct impact on people’s lives. The telos is fundamentally practical rather than epistemic.

This is hardly to say that translational work is free of epistemic labor—after all, it essentially involves novel inquiry. To give an example from the NIH’s remit, moving from a new biological discovery in the lab to a new vaccine delivered to millions requires a great deal of research, including animal studies to test and clinical trials to confirm that the vaccine meets thresholds of safety and efficacy. Here, one is still in the knowledge creation business, including paradigmatic examples of applied science. That said, translational science is different from applied science, and in two ways.

First, the specific research questions involved in translational work are strongly shaped by and answerable to the needs of the practical goal. *Which* pieces of knowledge are to be pursued is a matter fully in service to what is needed to take the next step in finding and building the solution. The epistemic agenda is a highly tactical one, chosen for its utility in pursuing an ultimately non-epistemic goal.

Second, translational work is not exhausted by the endeavors of inquiry, *even* highly pragmatically shaped endeavors. After all, the aim is to get to “useful services and products.” This means that, at some point, someone needs to *make* something. It is not enough just to understand a viral mechanism and its vulnerabilities; at some point, a vaccine needs to be produced, scaled, delivered. It’s not enough to know about the efficiency factors of a given algorithm to make an autonomous driving vehicle; at some point, a machine learning model needs to be built and trained, tested, and iterated. In the familiar phrase, translational work is comprised of research *and* development (“R&D”). Translational work, in short, moves beyond inquiry to invention.

By using the term “invention,” we do not mean to suggest something that has to involve patents! *Some* translational work does: a new machine, a novel protein. But translational work extends to developing more abstract products and tools, including protocols, guidelines, and models. What distinguishes translational versions of these from their more academic cousins is the degree to which they are built for use in the real world, sensitive to and shaped by the realities of an actual implementation context. For instance, a white paper about



broad ethical frameworks for new digital realities lies more on the applied side. It becomes translational when it moves to guidelines shaped to fit the constraints of a specific context and set of actors.

To summarize, translational work involves novel inquiry in the service of developing a tool or intervention that is built for use in a real-world context. Now, as reference to “ethical guidelines” begins to indicate, this concept of translational work is not limited to the sciences. Philosophy (as well as other humanities disciplines) can contribute richly to translational efforts. For one thing, philosophy can be the source of the novel discovery or insight that is the impetus for translation. Here we think of the work of Martha Nussbaum and Amartya Sen: they have complemented their novel theoretical work on a capabilities approach to justice with translational work, developing it into concrete economic policies and metrics for international development.

Philosophy can also be a collaborating discipline in translations of novel discoveries or developments originating in other fields. Examples can include ontologists and philosophical linguists working with computer engineers to develop better speech recognition algorithms, epistemologists working with policy makers deciding a responsible approach to a new technology that carries poorly characterized risks, or ethicists working alongside engineers at Google AI on the plethora of normative issues and choices encountered in the process of developing autonomous vehicles. Such philosophers are working as genuine “translational practitioners,” we would say, when their intellectual labor goes beyond disseminating extant theory (providing a “philosophy briefing”) to actively engaging in novel inquiry, and contributing their skills and expertise in service to the ideation and development of the intervention.

We see deep overlaps between our category of translational philosophy and this volume’s category of field philosophy. That said, we use the term “translational” to avoid certain connotations the term “field” can carry. In the physical and social sciences, fieldwork involves going into the world to confront and study first-order phenomenon outside a lab setting. The biologist goes into the forest to study patterns of acorn hiding among squirrels; the anthropologist goes to a border town to study the effects of increased refugee migration. This can make it sound as though field philosophy is characterized as embedding in the environment of the problematic (say, volunteering with sex workers to explore issues of consent), while the philosophical work we aim to highlight is work that can be done in guidance committees or product development teams. It can also make it sound as though field philosophy may concern itself purely with theory building, while the philosophy we are describing is centrally committed to the development of an intervention. A philosopher who does go into the field to develop a new normative theory of consent based on her experiences volunteering with sex workers is doing a (particularly cool) species of applied philosophy; a philosopher who uses that understanding to help develop a new policy, app, or practice for empowering that consent is expanding into translational philosophy.



## 4 The Concept and Field of Design

At Ethics Lab, we aim to move from applied to translational ethics. In doing so, we have found design—as a mindset, an approach, a set of practices—to be a surprisingly simpatico methodology. But why design? Indeed, given how unfamiliar design still is to much of the academy, what do we even *mean* by design?

In his 2016 Design in Tech report, John Maeda outlined three types of design: classical design (for example, architecture or graphic design); computational design (which we will leave aside for the purposes of this discussion); and design thinking, which is “a process for creative problem solving” that can be used outside of traditional design contexts (Maeda, 2016). It is the latter camp of design that our work in Ethics Lab falls into; but it can be helpful to start with classical design, since the process of design thinking has its roots in that practice.

Classical design fields such as architecture are, by their very nature, about intervening in the world. Paradigmatically, a designer is working to provide a solution to a problem or goal posed by another person (the client). That said, it’s not just any kind of solution process. If what you want is a toddler’s wading pool, you do not need a designer—there is an off-the-shelf solution at your local toy store. In contrast, design is about imagining and building something new. Furthermore, it is a process that does not take for granted what really needs addressing.

The first step in the design process is to correctly analyze and identify the underlying problem the client is attempting to resolve. Sometimes a client presupposes a solution in stating their problem or desire; while this can be helpful as a start, it is not the finish. To give an often used example, a city seeks an architect to revamp its public pool that is not getting much use. After talking to the public about why they do not frequent the pool, the architect advises the city that its pool is fine: what it really needs to do is to add a stop on the bus route to give people a way to get there. Or, as Henry Ford famously said, “If I’d asked people what they wanted, they would have said a faster horse.”

It is the designer’s role to surface the underlying problem driving the ask, in order to expand the field of possible solutions. This phase involves interrogation, observation, and tenacity. One method to aid this process is called the “Five Whys” (see below), which—as you may have guessed—involves assuming the natural curiosity of a five-year-old (and helps explain some of the natural connection between design and philosophy!):

CLIENT: “I need [x].”

DESIGNER: “Why?” (#1)

CLIENT: “Because [y].”

DESIGNER: “Why?” (#2)



And so on and so forth until you have exhausted the proxy explanations (or your client's patience).

Design practice also uses prototyping as a mediating step. Prototyping—making a series of iterative, working models of a product or service—allows clients and users to experience a design in progress and to provide constructive feedback that will ultimately shape the final design. The process prevents wasting resources on an ineffective or detrimental final product; more than that, it gives others something to react to. Having a prototype to respond to facilitates shared understanding, helps to evolve expectations and goals, and gives opportunities for imagining alternative solutions. The process usually includes some form of visualization—sketches or models that evolve over time. Visualizing thoughts makes them more accessible to collaborative critique and reflection. The purpose is both representative and improvisational. Just as writing and speaking help in the development of thoughts, so, too, does drawing and making.

In the best cases, prototypes begin with an accessible medium that is open to direct intervention, allowing users to not only *respond* to ideas, but to *generate* them. Richard Sennett is a self-proclaimed fan of styrofoam models, which anyone can easily form and manipulate through cutting, carving, and gluing. “The subjunctive voice thus can morph into visual form, in which possibilities and what-if? scenarios take the place of policy declarations” (Sennett, 2018, 245). The roughness of the materials is also conducive to working quickly and iterating often. Imposing a sequence of time constraints requires that something be produced. Participants do not have the luxury of perfecting an idea or solution before sharing it. And it's easier (psychologically!) to share a model that is inherently rough by design, one that precludes polishing, than it is to share one that could pass as a final product had there only been more time. Ideas that are not fully formed are tested and opened to interrogation, allowing them to grow in directions that may not have occurred to their originator in isolation.

Repeating this process creates a feedback loop in which prototypes are critiqued and refined in a cyclical manner until time is up. While insisting on high standards of rigor where it is actually critical (you do not want to build a bridge that is going to fall down), design gives space for expansive thinking when the details are not (yet) the issue. Design naturally leans toward action, emphasizing creativity informed by a deep understanding of content and context, examining the problem and solution spaces simultaneously. It's also a practice saturated with the necessity of moving from idea to action. As much as it cares about creativity, it is creativity in the face of ruthless constraints—whether material, political, technical, temporal, or human. Designers are committed to harnessing (if not necessarily enjoying) deadlines as essentially productive tools—to get out of one's own head, pull back from perfectionist gerbil wheels, get back to the prototype, and use it to mind-meld with others.



For design is also inherently collaborative. When there are diverse players involved, it is the designer's role to mediate discussion, find ways of facilitating conversation across different perspectives. The ideal goal is genuine collaboration—or “co-design”—a process that yields emergent group ideas, not just a patchwork quilt of individual contributions stitched together. It requires the kind of collaboration that involves not just separate streams of work, but probing, questioning, developing, reasoning, together.

Design as a field has also, more recently, been in critical reflection on how essential understanding end-users' needs is to an effective outcome. A classic cautionary tale is the “Frankfurt Kitchen” of the 1920s. Designed by Margarete Schütte-Lihotzky for Ernst May's new social housing project in Frankfurt, Germany, it came from a lofty aspiration: a desire to liberate women from the kitchen and achieve ideals of sanitation and efficiency. The new design was highly modernized (electric appliances), space efficient, and compact: a ship's galley converted for the home.

Today the design is celebrated and was even featured in an exhibit of the Museum of Modern Art (MOMA, 2010). Tenants in the 1920s, however, were less enthusiastic. Women felt cut off from family life while working in the kitchen, since they could not work and watch their children. The kitchen tables they owned did not fit in the new design. Residents could not afford the electricity bills necessitated by the fully electric kitchen (many resorted to using a camp stove!). As Martina Hessler explains, “Ernst May's design team refused to allow the users of the new housing to have access to the kitchen design process and instead responded to occupants' complaints with a huge ‘educating program’” (Hessler, 2009, 177).

A more recent example comes from William H. Whyte, author of *The Social Life of Small Urban Spaces*. He noted the error of designing public city spaces on the basis of people's responses to questionnaires. Often people talk about wanting spaces for “escape,” “oasis,” or “retreats,” as if they want to stay away from other people when out and about. As he noted, though, attending to “what people *do* ... reveals a different priority” (Whyte, 1980, 11). In fact, people in public often flock to social spaces rather than spaces of solitude.

The field of “human centered design” has developed practices and exercises, meant to supplement more traditional research, that help designers keep that end user in mind. For instance, “empathy maps” use a prompt to put one into the perspective of a concrete persona in a specific situation. The exercise then asks for fast, non-reflective notes jotted on a poster, or Post-its on a wall, describing what the person might be thinking, saying, feeling, seeing, or hearing. The aim is not for this to be empirically representative, but to move the mind to a place that keeps the essential subjectivity of potential end users at the forefront.

As theorists of design continued their reflection, the idea emerged of design as a mindset, an approach, a set of practices and tools. Even if one is not



working with a classical designer, these “habits of mind,” together understood as “design thinking,” can be used to help innovation, research, and collaboration. As László Moholy-Nagy puts it,

[d]esigning is not a profession but an attitude. The idea of design and the profession of the designer has to be transformed from the notion of a specialist function into a generally valid attitude of resourcefulness and inventiveness which allows projects to be seen not in isolation but in relationship with the need of the individual and the community.

*(Moholy-Nagy, 1947, 42)*

Given its comfort with and practices for working productively with complexity and novelty, design thinking can be particularly helpful when addressing social issues regarded as “wicked problems”—a term introduced by design researcher Horst Rittel in the 1970s (Rittel and Webber, 1973), and popularized by the work practices of IDEO and John Kolko in the 2000s. Such problems are recognized by their tangled contexts, dynamic conditions, and the need to draw on expertise from multiple disciplines (Dorst and Cross, 2001). This is precisely, we believe, what characterizes some of the most urgent moral challenges facing society.

## 5 Adapting Design as a Methodology for Translational Ethics

At first glance, it appears that ethics and creativity have nothing in common; one is constrained and the other unbridled. And yet, ethics is the insider handshake to a world of unexpected delights and creative starting points.—Coe Leta Stafford, Design Director, IDEO Palo Alto.

*(IDEO, 2015, 53)*

The above hopefully begins to explain why a connection between translational ethics and design is not as surprising as it might seem. First of all, design is a field, as we’ve said, that is built to help move ideas to action. It has an innate facility for collaboration and problem solving, for probing and refining goals, for supporting imagination tempered by realism. Furthermore, design has always been saturated with issues of values—navigating value conflicts, finding creative pathways for reducing trade-offs, or fiercely protecting what is most valued. The values of *ethics* (as opposed, say, to profit maximization) can find a natural home in design—indeed, “designing for values” is a movement gaining strong traction in the design world.<sup>1</sup>

We have found the lens and techniques of design helpful in a variety of ways for the work of translational ethics, including what we call surfacing and pathway finding.

Let’s start with ethical surfacing. Sometimes the ethical issues at stake in a project will be obvious—indeed, recognition of an ethical issue is what usually



brings people to Ethics Lab in the first place. But many times they are not, both because ethics and values (we believe) are rich in dimensionality, and because, in real-world cases, some of the most important ethical issues can be hidden in technical or institutional details that require probing. Surfacing ethical saliences thus becomes a critical activity.

We have also found this process benefits from being a *shared* activity. While our knowledge of ethical theories, concepts, and frameworks is critical, it is dangerous to move too quickly to a favored concept or theory. Instead, we have found it useful to design group exercises to surface substantive ethical stakes and tensions by those who know the context best. Ethical issues often need to reach a level of granularity to be useful, but it's a granularity that needs to be natively identified in the context (as opposed to a presentation about possible specifications). We use our expertise in ethics to probe technical experts and steer the conversation, all the while being open to the potential for novel discovery. It helps the technical collaborators understand where values, not just scientific details, are the core drivers of the intervention; and it helps the ethicists to not go down philosophical rabbit holes that are fascinating but not relevant to the task at hand.

Moving next to pathway finding: one of the most notable things about translational work in complex moral problems is that, without care, interventions proposed even with the best of intentions can raise ethical issues of their own (as we saw with the example around trauma and birth). Ethics work in a translational context is not a one-time exercise, since new moral saliences—new tripwires to avoid, new possibilities of moral value to reach for—can be revealed as the project continues. (This is a phenomenon we sometimes jokingly call “fractal ethics.”) An approach that views the development of a good ethical intervention as a “design problem” will have comfort and ease with this fact, because design helps the group remain agile enough to anticipate problems down the line and note areas where more research is needed to ensure the intervention has its intended effects. More broadly, design is at home with the idea of robust iteration: development from prototype to final product is not simply a process of moving from lower to higher fidelity and finish (from a sketch to a fully realized product, for instance), but a process that can involve strong pivots. It is an epistemic process of discovery, with new challenges revealed as the project progresses.

More generally, we've found that exercises and approaches borrowed from design are helpful for scaffolding collaboration and creativity across disciplines and perspectives. As Kristine Baerøe (2014, 3) puts it, cross-disciplinary work involves “bridging epistemologically distinct areas involving different kinds of training and competence.” This is challenging, to say the least. The sheer amount of background each disciplinary expert draws on, and the fact that different disciplines can use the same words in wildly different ways, renders problematic the usual tactic of asking for background briefings from each



member (what we call “sharing propositionally”—also known as “death by PowerPoint”).

Because design practices are built to surface tacit knowledge and get it working in a shared space, we’ve found its approaches, especially visual exercises, a useful tool. Visually representing thoughts—for instance, sketching out ideas on Post-it notes and then finding different ways of grouping them to discover affinities—can quickly draw out points of confusion, ambiguity, and disagreement. Tabletop exercises get conversations flowing and a joint mind developing far more quickly, in our experience, than the usual interdisciplinary conversations. Such tools can help keep people from monologuing or staying in their own individual node of expertise. They help build a shared understanding of underlying assumptions, and help jump-start a group’s ability to collaborate epistemically and deliberatively.

As a final note, the philosophers at Ethics Lab want to share how inspiring it can be to work with designers (especially ours!). Collaborating on translational projects can be challenging for philosophers. It’s not natively a field about innovation or action. The idea of working within, shall we say, non-conceptual constraints (time, dollars, institutional feasibility!) is not home base for philosophers. For designers, though, it is the bread and butter of what they do. The attitude and mindset of design can be a corrective to tendencies to over-emphasize theory, or to get stuck on analytic distinctions that may be more fascinating than relevant to moving a particular intervention forward. Abductive reasoning and analogical habits of mind join with the philosophers’ important toolkit of probing inferential relations, counterexamples, and conceptual refinement. Working with designers can help ethicists, in particular, from getting stuck in the role of social critic. Instead, they get to be part of building something. Working with designers is also just plain fun. It encourages a mindset of play. Ideas are experiments rather than objects of defense. Ambiguity is an opportunity for creativity rather than anxiety. You get to use different parts of your brain. Periods of isolated reflection are balanced by fast and social mind-melds—and lots of Post-it notes!

Philosophy is a discipline with much to contribute to the world. Our whole team believes deeply in the importance of theoretical philosophy. We also believe that philosophy will be most robust as a discipline if it is not exhausted by that effort. Applied work in philosophy is critical; public philosophy is critical; philosophy that collaborates with other disciplines is critical. What we have argued here is that *translational* philosophy—philosophy that harnesses its intellectual and creative labor in the service of building tools and interventions to impact the world—is another deeply valuable way for philosophy to contribute, and that methods from the world of design can be a helpful mode of doing so.



## Note

- 1 See, for example, Delft University of Technology's Design for Values project, <http://designforvalues.tudelft.nl/>, and the University of Washington's Value Sensitive Design Research Lab, <https://vsdesign.org/>.

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## PART II

# Policymaking and the Public Sphere





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# 6

## LEARNING TO COLLABORATE IN DEVELOPMENT POLICY

*Ryan Muldoon*

Earlier in my career, when I was trying to transition from a postdoctoral researcher to a tenure-track position, I applied for a position in Applied Ethics. In the interview, I described my work with development agencies as an instance of applied ethics. I talked about working with UNICEF on training project managers to use a social norms framework to measure, evaluate, and intervene on complex social challenges in the development context. I talked about working with the Guatemalan Ministry of Education to improve indigenous girls' access to school. To my surprise, the philosopher interviewing me said that this was "too applied." At the time I was more than a little frustrated. After all, had I not relied heavily on work in ethics and social philosophy to develop approaches that were consistent with respecting vulnerable people's autonomy and rights? I thought the interviewer's response was emblematic of an overly narrow conception of what applied ethics could be. But I now think that this was the correct response. What I've done in this space is not really applied ethics, at least not in the sense of the subdiscipline as it exists in philosophy. Applied ethics is largely for the consumption of other philosophers. What I've done in this space is not really for philosophers at all. Instead, it is aimed at improving conditions in the real world, rather than advancing a view in an academic debate. It is, I think, really doing *field philosophy*. It does not by itself generate new philosophy, but it hopefully makes philosophy more useful to everyone else, and the practice of it can help spur more philosophical work.

I became interested in development policy because, for a social and political philosopher, there are many fascinating issues: distributional worries, institutional arrangements, rights protection, sustainable growth, expertise, paternalism, and a host of other concerns. It's a philosophically rich area, full of challenges that are interestingly different from common issues that arise in the



traditional philosophical literature. Development policy is also extraordinarily difficult. That is, not only is there the challenge of determining what justice demands in rather complex situations, there is also the second challenge of finding a way of instantiating what justice demands. Even well-intentioned, well-trained professionals in well-financed organizations can fail to achieve policy goals. Most importantly, communities within the development context want to improve their lives along a number of dimensions and, despite their best efforts, often remain stuck in bad situations, even with outside assistance. It can be a situation where people may know where they want to go, but still are unable to get there.

This stands in stark contrast to much of mainstream political philosophy. Political philosophers in the Anglo-American tradition have most typically worked within ideal theory, which describes a system where the institutions work as intended, individuals comply with the requirements of justice and the laws that are in accordance with them, and people are motivated to do so out of a sense of justice. Rawls in particular saw his work in ideal theory as specifying a “realistic utopia”—something that is achievable by people like us, though reality almost always falls short of these ideals.

This kind of work has led to important insights, and it helps philosophers home in on what they take the demands of justice to be. However, in my own work I have found that ideal theory frequently rests on assumptions that reduce its ability to speak to situations I’m interested in addressing. For instance, full compliance has often been held up as the crucial assumption of ideal theory, but this assumption rarely holds in the non-ideal world. I have been increasingly interested in challenging even more basic assumptions: that institutions do what they are designed to do, that informal norms and formal institutions are in alignment, that law has the reach that we assume, and that individuals have the rich autonomy that helps normatively ground the liberal project. Of course, I am not alone in this. This focus on ideal theory is beginning to change—increasingly we have seen philosophers developing an interest in *people like us* rather than idealized agents. Non-ideal theory can explicitly take these factors into account.

Many of these assumptions are perfectly natural when we are considering how a more just version of Canada or Britain or the United States might look. All three have a significant history of stable, though imperfect, institutions, a broad respect for the rule of law, and governing bodies that largely have the capacity to execute their plans. Citizens of these countries are also broadly well off by global standards and have access to resources that aid them in their development. Ideal theory just treats these conditions as given and imagines what society would be like if we had an even better set of institutions, or a more moral populace.

However, developing nations are not just less-rich versions of Canada—they often lack robust formal institutions, they frequently have weak capacity to



reach their citizens, and individual freedoms are frequently so restricted that personal autonomy is limited. Poverty itself can restrict a person's capacity for making choices when each decision that must be made directly affects the ability to survive.<sup>1</sup> For these reasons, development policy presents a host of important but overlooked problems for political philosophy. Even if our goal is to understand justice in the well-ordered society, it can be helpful to have a deeper appreciation of the standard assumptions that help shape that society. A developing nation may well know what kind of country it would like to be—it is just that the gulf between the present and the ideal is so wide that the ideal does not do much to help orient efforts to improve the status quo.

## Early Exposure to Development Challenges

I have been fortunate in that I was exposed to problems in development early in my career. I worked as a graduate research assistant for Cristina Bicchieri while she was completing her ground-breaking book, *The Grammar of Society* (2005). Bicchieri develops a theory of social norms as being amenable to measurement and intervention. Thanks to her support, I have continued to theorize about the nature and dynamics of social norms and how they direct the behavior of individuals in society.

The timing of my graduate studies was fortuitous. At the time, development agencies were turning away from what might be called “patient-centric development” and toward “agent-centric development.” That is, rather than seeing people as carriers of burdens and developing interventions to remove those burdens, there was a movement toward seeing people as making the best choices they could, given their many constraints. And while the availability of material resources often limits one's choices, the social environment also heavily shapes individuals' choices. UNICEF in particular took a leadership role in exploring how they could better understand the social environments that people face, and how they could help improve those environments to better protect the rights of children. Child protection is the most obvious case where development outcomes depend heavily on behavior, but water and sanitation has been another huge arena in which sustainable behavior change has the power to significantly improve people's lives.

It was because of UNICEF's interest in sustainable behavior change and the role of social norms in improving development outcomes that I could get involved in development policy, at first in a training capacity. As part of a team at the University of Pennsylvania led by Cristina Bicchieri and Gerry Mackie, I taught UNICEF staff on a program focused on understanding issues in development through the lens of social norms. This included questions of norm formation and sustainable norm change, as well as issues surrounding measurement. This Penn–UNICEF training program ran from 2010 until 2015, and helped build internal capacity at UNICEF for diagnosing, measuring, and intervening



on unhealthy social norms, while working to support healthier or rights-promoting norms. Cristina Bicchieri has worked to institutionalize this kind of work at Penn by creating the Penn Social Norms Group (Penn SoNG).

I was lucky that I was able to do this work without too much interference with my academic positions. The program ran during the summer, and so I could do it outside of the academic calendar. I was a postdoctoral researcher at two different institutions over the years this program ran, and while this impacted my academic productivity in the summer, I didn't have to worry about interruptions to my teaching. I could contribute to the UNICEF program in more intensive bursts of concentrated work over 6–8 weeks in the summer. During the academic year, I could then reflect and draw on what I was exposed to in my normal academic work.<sup>2</sup>

This experience working as a trainer and facilitator was incredibly valuable. Most importantly, it helped me better understand both how limited my exposure to the world had been, and how genuinely useful the tools of philosophy can be. Before working with UNICEF staff, I had the vague sense of living a cosmopolitan sort of life—working at a university meant being around people from many different countries, and academics often travel abroad for conferences. I have come to realize that my previous sense of the cosmopolitan pales in comparison to what I experienced working with an international development organization. The people I was fortunate enough to meet came from all over the world, with a large cohort from the developing world. This diversity of nationalities and languages was paired with a wide variety of disciplinary backgrounds. The problems we worked on were informed by a much broader reservoir of experiences and knowledge than I had previously encountered.

The kinds of problems we worked on were not merely speculative concerns or interesting theoretical challenges, but were urgent needs of real communities to which my colleagues had special obligations. It's one thing to determine the wrongness of using child soldiers, but an entirely different one to work out how to re-integrate former soldiers and their brides into a community in a way in which everyone is treated with respect. Likewise, it is easy to condemn female genital cutting but rather harder to eliminate it from a community without creating social stigma for women and girls who have already been cut. People in the West also often assume that things like female genital cutting are imposed on women and girls by men, but often these are things that girls want because they are a social norm. It's much easier to tackle a social problem when most people see it as a problem, but often communities view harmful practices as valuable and identity affirming. In other instances, people can simply fail to be aware that there are alternative options. These and many other pressing problems are regularly the subject of interventions by development agencies, and my role was to help policymakers think about some of these issues within a social norms framework to see if it offered new opportunities to better understand existing situations and to find more sustainable intervention strategies.



This work taught me a few important lessons that have served me well in my later efforts. The most obvious is that collaborative interdisciplinary work is often about translation. Like any discipline, philosophers have lots of jargon. That jargon facilitates efficient and precise communication among philosophers, but it makes much of what we say opaque to non-philosophers. I was prepared to reduce how much jargon I used and was willing to give up making some distinctions if it could make it easier for others to understand me. I was not prepared for the immense amount of jargon that development professionals use, including the dizzying number of acronyms that large organizations like UNICEF rely on. Much of my job was translating the concepts that I found useful from philosophical work into terms more comfortable for development professionals. So while I thought the effort was going to be in reducing the jargon I used, the real effort was changing to an unfamiliar jargon. This was part of a broader recognition that, in these contexts, my role was to support the work of others by providing them with new tools. While I had philosophical interests in this work, the reason I was in the room was to help them in their work.

The next big thing I learned was that development professionals operate under a very large set of constraints. An organization like UNICEF is invited in by governments to help with development challenges. But those same governments do not want to be embarrassed, so it may be the case that data collection is politically constrained. Just as often, it may be that there isn't sufficient government capacity to do certain things. Likewise, development agencies may be constrained by what their donors are interested in, and much of their funds are earmarked for particular kinds of programs chosen by activist donors rather than being guided by expert assessment. Another constraint is that the project cycle is not very long (which is in part because of the budgetary constraints of donor-funded organizations). Finally, big organizations like UNICEF rarely do all of the on-the-ground work themselves and instead contract with smaller NGOs. These NGOs differ vastly in their training, professionalism, and technical capacity. Such constraints are certainly not crippling, but they do end up shaping what can be done, how it can be done, and what data can be brought to bear on a problem.

It is incredible how much can be done despite these constraints. These constraints are obvious upon reflection, but the outside public, which used to include me, has a very idealized conception of how development aid works. We tend to imagine single transformative fixes, like providing a new water well, or building a school, which then more or less permanently improve people's lives. However, in practice these single interventions are rarely sufficient for significant change. Wells are not useful if pumps break and no one can repair them, and schools only help development if there are teachers and students who show up for class. Instead, many enduring development problems require not only material resources, but capacity development and sustainable behavior



change. This can often mean that change is slow, and gains are hard won. Building a well is straightforward. Improving the civic position of women is not.

## Large-Scale Collaborative Work

The largest and most intensive piece of work I have done in development was co-authoring the *2015 World Development Report*, which focused on what the social and behavioral sciences had to offer development policy. Over the course of 2013–2015, I was part of small core team of authors led by Karla Hoff and Varun Gauri. The *World Development Report* (WDR) is the World Bank's flagship report—a new report is released every year, and each year it is on a different topic important to development policy. The topic is largely determined by an internal competition, and the report is considered a staff report, meaning that the team authoring it has broad autonomy to develop the report as they see fit. There are multiple stages of peer review from both inside and outside the Bank, which includes a fairly massive outreach effort, covering aid organizations from many countries, many independent NGOs, academic experts, and others who provided a great deal of insight and criticism.

This was a very large project, to say the least. Unlike my initial work with UNICEF, which was confined to the summer months, this project continued for nearly two years, from when I was first brought on board to do very preliminary research work, to the end of our promotional efforts around the world post-publication. During this time I maintained a research fellowship at Penn. The original plan was that I would spend approximately 60 percent of my time in my World Bank office and 40 percent of my time at my Penn office and, as such, treat each job as part-time. In reality, I had two full-time jobs, and had to perform at each as if the other did not exist. This was easily the most intensive period of labor that I have experienced.

At its core, the task of writing the Report requires that over the course of a year, a group of about eight people (with some assistance from outside authors) writes a book that offers an operationally useful analytic framework to make sense of the relevant academic knowledge together with the published outcomes of development initiatives in a particular topic area. Our task was especially challenging, as themes for Reports are rather technical—for example, in 2008 the Report was on agriculture, in 2010 it was on climate change, and in 2013 it was on jobs. Our assigned topic was the relevance of social and behavioral sciences to development policy, and thus was more methodological. This was in one sense quite exciting—it was work that was relevant to everyone, regardless of region or sector—but also challenging, in that there was not a natural scope to the project. Because the subject itself lacked a clear scope, our initial efforts revolved around determining what to include and what to exclude. We ultimately decided to divide the Report into three parts—the first offering a



general analytic framework for thinking about social and behavioral issues in development, the second offering more sustained examinations of how these issues play out in certain policy areas, and the third turning the focus to development organizations themselves, examining how behavioral insights might inform better practices for development professionals. In my own view, our most important contribution was in that last section: it is easy to fall into the belief that experts know what's best, and that it is only the targets of policy that are subject to biases or are in the thrall of an unhealthy norm. We demonstrated empirically that policy experts also make systematic errors of judgment. This led us to suggest a number of tools and reforms that could improve the policymaking process in light of these biases, heuristics, and norms.

Working on this project was highly collaborative. As a group we worked out the core areas to cover, developed a framework to help systematize the use of behavioral tools in development, and then co-wrote chapters and supplements. We also had an experimental component to this project, and so part of the team developed an extensive set of lab and field experiments that were conducted and discussed in the Report. This was a project with many moving parts, and it required a broad range of skills. This diverse range of skills also brought with it a diverse range of views about how to carry out our work, and so this required a fair amount of deliberation, negotiation, and consensus building. This experience cemented for me the importance of perspective taking and flexibility. While I was nominally brought on board to work on the more academic component on norms, I ended up working more on some of the applied topic areas, and the policy process component.

Working at the World Bank is different from academia in another important way: meetings are quite important and are often where much of the real work gets done. Academics are used to the idea that departmental meetings are tedious and pointless, but at the Bank, my experience was that meetings could be incredibly productive and were often how key decisions were made. This required skills in building consensus and seriously addressing people's concerns. Simply putting one's head down and working might be okay for a first draft, but it may be a draft that's simply thrown away if there isn't any support for it. This work was fundamentally a collective product, not just sections written by different people stitched together by a lead author. In part because it's unusual to co-author papers in philosophy, these are not skills that are emphasized. But when one works with so many collaborators, it becomes essential to employ these skills.

## Institutional Challenges

An unsurprising initial challenge I faced as I began my time at the World Bank was in convincing people that a philosopher could make productive contributions to development policy. While the WDR2015 team was diverse in our



areas of expertise, as far as I'm aware there hadn't been a philosopher as part of the core writing team of a WDR before, and people reasonably were suspicious about whether a philosopher could offer practical guidance. While there are a variety of disciplinary backgrounds represented at the World Bank, economists are the most prevalent, and there is not a history of philosophers being around. I worked hard to demonstrate my value to the team early on. Subject-matter expertise in social norms was helpful here, as was my experience working with UNICEF, especially on issues surrounding sanitation. Broadly, though, this meant that I initially focused my concerns on very practical issues, always doing what I could to describe issues as an economist would. On more than one occasion, I would enter a meeting with other Bank staff, and people would see my beard and ask, "So are you the philosopher?" with a bemused look.

This stopped happening once it became clear that I had useful things to contribute, and I could hold my own while talking about policy and measurement issues in program evaluations. In particular, it helped that I could more concretely speak to how some issue would tie into a particular aspect of the project cycle, or be responsive to common constraints that projects faced. Especially at first, any time I could choose between targeting a more abstract or a more concrete level of discussion, I opted for the concrete. This helped to convince people that my head wasn't in the clouds and that I had thought carefully about the material and political details of a development problem. This bought me some capital for debates where I needed to make a more abstract point or to rely on normative principles outside of the norm for economists to consider.

A wonderful surprise about the World Bank was that, at least in the unit in which I was working, it was remarkably like being at a top-notch university. Most of the people I worked with had PhDs, and many had been academics before turning to development work. There were more talks than I could possibly have gone to, and on a huge variety of topics. There were workgroups on all kinds of social, political, and environmental issues. And there was a huge amount of diversity across a number of dimensions. There is even something like a faculty senate as part of the governance structure. This provided for a great deal of internal dissent and deliberation. I had expected a more corporate environment, and while there were certainly some meetings that felt more like that, in general it felt like an academic think tank with an immediate set of interests for the use of its research.

An important difference with the World Bank compared to a university, which I had not quite anticipated, is that there is a much bigger sense that you are a representative of the institution. On the one hand, any email I sent to someone—whether a famous academic, or a policy person, or a government official—from my worldbank.org email address was sure to get a reply. Sending the same email from my academic account had vastly lower yields. My role as a core author on the *World Development Report* (WDR) meant I would be listened to. But it also meant that I was much more careful about how I expressed



myself in my World Bank role than in my academic role. Likewise, if I were writing about some country's policies or attempted to run a pilot project in that country as an academic, that country wouldn't care. Doing the exact same work in a World Bank capacity may cause that country to decide that they do not want me to do it and ask that I refrain (or not give me permission to run the study). A country can largely ignore it if an academic were to publish something negative about it, but it is a much bigger deal if the World Bank says something negative. Though I never felt any pressure from my Bank colleagues or my supervisors to say or not say particular things, it was clear to me that there were extra responsibilities in speaking as Bank staff that I've never felt when speaking as a professor. In part this is because the World Bank is an enormously influential institution, but also because there is, in general, more of an understanding that academics speak for themselves and not for their universities.

This sense of responsibility really shaped the work we did. First, simply in virtue of it being the *World Development Report*, what we produced was going to be widely read by development professionals. WDRs can help frame the conversation about new development policy, and so it was important to produce the best work that we could, in the fairly short period of time that we had to produce it. Second, it meant that we had to make sure that we were offering useful tools for the broadest constituency possible. Third, it meant we had to have extremely high standards of evidence for anything we included. This was an especially stark difference from what I was used to in publishing philosophy. Philosophers are pretty free to make conjectural statements, or explore a possible causal story, and perhaps justify it with a sentence in a footnote. Philosophers, for good reasons, focus far more on the structure of the arguments, and less on the truth of the premises. For the WDR, every subject area we wrote on was backed by an extensive literature review and, to the best of our ability, every significant statement about policy or behavior or measurement was backed by at least one well-designed field study in the development context, and ideally several. The fear was that if we made a policy recommendation that just seemed like a good idea, that could result in significant resources being poured into something altogether untested. For this reason, we had to leave out a number of subjects that were of real importance but lacked sufficient (or sometimes any) data. It was eye-opening to see how many areas in development policy lack the kind of data that would help drive more successful policymaking.

The wonderful thing about working on a project like this is that it is very easy to remain motivated to do good work. If you do good enough research, and think carefully about what to say and how to say it, you can make a real contribution to the well-being of those who most need help. Unlike most academic philosophy papers, there is a large built-in audience for a WDR, and because it comes from the World Bank, that provides an important institutional validator for any ideas and proposals that are contained within. So, this gave me



reasons to do as much as I could to improve the document, and to work as effectively as I could with others. Making myself useful to others ensured that I got to have input on what they worked on.

One of the important things that I discovered in this work is that while my path to development policy work started with some expertise in social norms, my philosophical training in general was a major reason that I have been able to keep doing this work. Philosophers are in many ways generalists, at least in terms of the skills we acquire during our training. We are very effective at cutting to the core of an argument, identifying the moving parts, and putting the rest aside. We are good at thinking through counterfactual cases and have experience identifying normative assumptions in what might otherwise look like a descriptive claim. We can express these ideas clearly in our writing and in conversation.

Philosophers often conceive of their skills as they relate to other philosophers, so we often cash out our expertise purely in terms of our areas of specialization or competence. Likewise, I thought that my expertise in social norms was going to be the reason that people wanted to involve me in conversations. And while that subject-matter expertise certainly came in handy, I was able to participate in more conversations because the general philosophical toolkit I had was in itself valuable. When working with an interdisciplinary group, much of what we bring to the table is our disciplinary background. Almost by definition, those are skills that others on the team will lack. And so it is important to see those disciplinary skills that we take for granted when working with other philosophers as key differentiators for us in more interdisciplinary settings.

One of the most important lessons that I have learned from this work is that philosophers must develop effective ways to translate their concerns or proposals into terms that practically-minded economists, doctors, engineers, and policy-makers can actually understand and use. This requires work on our part—it means that we must learn enough about other disciplines, or the details of a given empirical problem, for us to be able to engage with those details of the given problem and do so on terms that others can understand. This is useful for philosophy itself, of course. Philosophy of science increasingly focuses on the actual practices of scientists. Philosophy of language pays attention to linguistics. But these are all efforts to import the concepts from other fields into philosophy. Philosophers can work to export more philosophy into the frameworks of other disciplines. This helps make our relevance and value clearer to others.

It is common in the sciences to work on translational research—taking basic research that may be removed from any given practical problem and then applying it to particular problems, like improving the treatment for some disease. I view my policy work in this way. I take some of the basic research that I and other philosophers have done and work to convert it into policy tools and recommendations. This translational work by itself is not necessarily a major philosophical contribution, but it is a contribution that demonstrates and potentially



increases the value of philosophy. Insofar as philosophy has practical impacts, the timelines tend to be long. But in this kind of work, philosophy has immediate impact. For instance, writing a book may introduce some ideas that can slowly circulate in the culture, and eventually have some impact on how people think about an issue. Revamping how a major organization measures social outcomes, or how it thinks about rights protection, can have a large impact right now, as it is immediately institutionalized at scale.

Since my time working on the WDR, the World Bank has taken steps to institutionalize some of the lessons learned. Most prominently, there is now the Mind, Behavior and Development Unit—a group of 16 tasked with working with project teams within the Bank and governments around the world to help diagnose problems and to design and evaluate behaviorally-informed interventions. I have also worked with the World Bank on other projects, most notably an effort to understand the social causes of bride kidnapping in the Kyrgyz Republic, and have contributed to potential policy interventions to eliminate the practice. Separate from my work with the World Bank, I have worked with colleagues at the University at Buffalo to improve measurement and evaluation tools for sanitation projects, largely focused on toilet use and handwashing. My goal is to make sure that the standard measurement and evaluation tools that development agencies use incorporate questions about norms, and so I have been refining these tools through testing in a number of different countries.

## Closing the Circle

Stepping back, I see several ways in which this work in development policy has influenced my academic work. First, this work gives us reason to think that notions of agency are more complex than political philosophers have been inclined to treat them. One of the things that behavioral science makes apparent is that human agency is not a yes/no proposition but instead exists on a continuum. Different environments can make it easier or harder to exercise agency, and devoting cognitive resources to one choice may well deprive us of resources for making the next choice. Indeed, how we understand our agency can be a matter of the perspectives we take on.<sup>3</sup> In the rich world context, we fail to appreciate how many choices (and the consequences for bad ones) we have been able to eliminate. We are allowed to see choice as expressive because we handed over a lot of the more mundane choices to institutions and infrastructure that take care of things for us. If we were to remove some of those safeguards, and take on more choices, we would be in a worse position to make effective choices for ourselves where they count. Poverty is not just harder because you do not have money—it is harder because it is a tax on your cognitive resources.

A second lesson is that the interplay between formal and informal institutions is incredibly important, both in the development context and in the rich world



context. Laws are just words on paper unless a whole host of other things go right. For instance, every now and again, I will see friends and colleagues cheer when there is a new UN resolution banning some rights-violating behavior—such as, say, female genital cutting. And while it is nice to see such things, a UN resolution alone does not do much. Female genital cutting is already illegal in every country. Its illegality doesn't prevent its widespread practice, because the people who practice it simply don't care about that law. The police don't care about that law. The judges don't care about that law. An overly formal or legalistic conception of how to shape people's behaviors imagines that people will (in general) follow whatever the law says, at least if we've established a rule of law. But that's clearly not the case. Formal institutions may be important, but equally important are the informal institutions that can prop them up or prevent them from functioning. This has led me to a new line of research considering the trade-offs between relying on formal and informal institutions for enforcing social rules.<sup>4</sup>

A third lesson, or perhaps a reaffirmation, has been the importance of perspectives. Interdisciplinary work is interesting precisely because it brings many different perspectives together. At the same time, it is difficult because it brings those perspectives together, and that can inhibit effective communication. I am convinced that putting multiple perspectives in dialogue with each other is extremely valuable, but those rewards do not come for free. Everyone has to work a bit harder and be able to deal with additional complications and misunderstandings for those benefits to really materialize. It is far easier to stay within one's disciplinary boundaries, but there is also less to gain. Breaking out of those boundaries is riskier, but substantially more rewarding. In recent work, I have tried to show that the benefits of this mixing of perspectives is in part a product of the difficulty.<sup>5</sup>

## Notes

- 1 For more detail, see *Scarcity: Why Having Too Little Means So Much* (2013) by S. Mullainathan and E. Shafir.
- 2 In particular, I developed new models of norm dynamics based on examples from the field. This led to two papers, R. Muldoon, C. Lisciandra, C. Bicchieri, S. Hartmann, and J. Sprenger, "On The Emergence of Descriptive Norms," *Politics, Philosophy and Economics* 13, No. 3, 377–394, and R. Muldoon, C. Lisciandra, and S. Hartmann, "Why are there Descriptive Norms? Because We Looked for Them," *Synthese* 191, No. 18, 4409–4429.
- 3 I develop this at some length in R. Muldoon, "Perspectives, Norms and Agency," *Social Philosophy and Policy* 34, No. 1, 260–276.
- 4 "Norms, Nudges and Autonomy," in *The Palgrave Handbook of Philosophy and Public Policy* (2018), David Boonin (ed.), 225–233, develops a normative framework for considering the relative costs of formal and informal institutions.
- 5 R. Muldoon, "The Paradox of Diversity," *Georgetown Journal of Law and Public Policy* 16, 807–820.



# 7

## PHILOSOPHY IN THE IPCC

*John Broome*

### The IPCC

The Intergovernmental Panel on Climate Change (IPCC)<sup>1</sup> is a United Nations body that was created in 1988. Its purpose is to review and assess the science of climate change. The IPCC's First Assessment Report published in 1990 was instrumental in creating a treaty, the United Nations Framework Convention on Climate Change (UNFCCC), in 1992. Since then the IPCC has produced a sequence of reports that have informed the UNFCCC's development. The Fifth Assessment Report (AR5) was timed to come out in 2014 to provide the scientific background for the UNFCCC's 2015 meeting in Paris, at which the widely-acclaimed Paris Agreement was adopted. Because of their authoritative nature and their connection with the UNFCCC, the IPCC's assessment reports are very influential.

AR5 was the first report in which the IPCC included philosophers as 'lead authors.' There were two among more than 800 lead authors. I was one and the other was Lukas Meyer. This chapter recounts my experiences in bringing philosophy to the IPCC and the battle to get philosophical issues connected with climate change well represented in the report. I learned a few lessons that I hope may be useful to other philosophers working in the public domain.

### The Labor

It was, first of all, a grueling experience over three and a half years. I attended a dozen meetings of authors, many of which lasted a week or even longer. I went to meetings in Lima, Changwon (South Korea), Wellington (New Zealand),



Addis Ababa, and Kuala Lumpur, as well as many in Europe. You might wonder why the IPCC sends hundreds of people to distant parts of the world, emitting tons of greenhouse gases on the way. The answer, as I understand it, is that the IPCC has little money of its own. It depends on the generosity of governments to pay for meetings, and therefore goes where it is invited. The travel expenses of most lead authors are paid by their own governments. The British government paid for my travel and offset my emissions. Oxford University gave me some relief from teaching, and I raised a little funding for a research assistant. No author receives any pay.

We produced three drafts of the main report before the final version. This report is huge—over five million words. Each draft was sent to many commentators—both academics and governments. We received over 140,000 comments. We were required to take note of each one and record what we did about it. I alone dealt with 700 comments.

The authors were divided into three ‘working groups,’ and each wrote a volume of the report. A subgroup of each working group then wrote summaries of their volume. They wrote a longish ‘Technical Summary’ and a ‘Summary for Policymakers’ (SPM) of a few dozen pages. The SPM was discussed and edited at a final ‘approval session’ with governments, in an extraordinary process that I shall describe.

Finally, after the three working groups had reported, a small group of authors, including me, wrote a *Synthesis Report*, which brought together the work of all three groups. It too went through several drafts, requiring many meetings, and it also had its own SPM and approval session.

## Method

The IPCC is led by scientists, and its reports are treated as scientific publications. I was regularly referred to as a scientist; I did not mind. The methods came from science. At our first meeting, we were told we should refer only to papers published in peer-reviewed journals. I said that philosophers sometimes write books. The response was that books could be referred to, so long as the publisher was a reputable university press, because that would mean it was peer-reviewed. I said I might want to cite Aristotle. The response was that it was permissible to cite material that had not been peer-reviewed, but special procedures applied to this ‘grey literature’ as it was called. The IPCC wanted to hold a copy at its headquarters in Geneva, in case the contents were questioned. I ignored this rule, and no consequences ensued.

To be fair, the IPCC has good reason to be defensive. The Fourth Assessment Report (AR4) contained the incredible prediction that glaciers in the Himalayas would melt by 2035 (IPCC, 2007, section 10.6.2). This one mistake in the 3000 pages of AR4 did not appear in the core scientific volume contributed by Working Group 1. Nevertheless, it drew an extraordinary amount of



criticism when it was discovered. The date of 2035 was taken from an unrefereed publication, and it definitely should not have been.

IPCC reports are supposed simply to review the literature. This is difficult for a philosopher, since our nature is to make arguments rather than report what people have said. I ended up reviewing the subject rather than the literature in the subject. I hope this was a good compromise.

## Content

Meyer and I were in Working Group 3 (WG3), whose job was to investigate the options for ‘mitigation,’ which is to say, reducing the degree of global climate change. We were allocated to Chapter 3 of WG3’s report: a theoretical chapter entitled ‘Social, Economic and Ethical Concepts and Methods.’ We found ourselves working with a dozen other authors who were mostly economists. Later, despite protests from me, I was drafted as an author of the summaries of WG3. This meant I attended WG3’s approval session in Berlin. I also became an author of the *Synthesis Report* and its SPM. So I saw the AR5 through to its last hurrah at the approval session of the *Synthesis Report* in Copenhagen.

Even before the authors were recruited, the chapter headings of the working groups’ reports and even their section headings were set by the IPCC Panel itself, which consists of delegates from the 195 member governments. The Panel evidently intended that we two philosophers should be responsible for just one section entitled ‘Justice, Equity and Responsibility.’ Until recently, most of the philosophers who work on climate change have been political philosophers. They have tended to concentrate on how the burden of dealing with climate change should be fairly distributed among countries and people. Who is to blame for it, and who should pay for dealing with it? Given political philosophers’ traditional interest in justice, it was natural for the climate change community to associate philosophy with the topics of justice, equity, and responsibility.

We do indeed have a lot to say about these topics. But we also have a lot to say about the topic of value, which is equally central to climate change. Part of it is the nature of human wellbeing, and how different people’s wellbeing may be aggregated together and weighed against each other. At my request, our working group’s leaders managed to persuade the Panel to add a section to our chapter entitled ‘Values and Wellbeing.’ I took the main responsibility for this section, and Meyer the lead responsibility for ‘Justice, Equity and Responsibility.’

In the space I was given in the WG3 report (IPCC, 2014a, sections 3.4 and 3.6.1), I tried to write a primer on value theory, starting from its foundations. In the practical politics of climate change, it is economists who deliver concrete measurements of value. So my primer worked up from first principles to explaining and criticizing economists’ measurements.



Each step in this development requires heroic assumptions that set aside huge issues. First, we assume that value as a whole can be broken down into separate values. Then we divide values into human and non-human values, and set aside the non-human values. Among human values we concentrate on the wellbeing of individuals, setting aside communal human values, which cannot be ascribed to individuals separately. Then we make some detailed assumptions about how individual wellbeing comes together to determine an aggregate of wellbeing. At this point I included a section on the ethics of population. Since climate change affects the world's population, population ethics is essential for good judgments about climate change, but until now it had been entirely neglected in the literature of climate change. Finally, we make assumptions that allow us to measure the aggregate of wellbeing in terms of one quantity: money.

To arrive at a credible measure of value in terms of money, quantities of money have to be adjusted to take account of the differing values of money to rich and poor people. Since the time of the great nineteenth-century economist Alfred Marshall (1920, Book 3, Chapter 3), it has been recognized that money is worth less to a rich person than to a poor one because a rich person already has many more of the things money can buy than a poor person has. A rich person has only luxuries to buy, whereas a poor person must buy necessities. Nevertheless, common practice in economic valuation neglects this point. It measures the value of an event or policy in terms of its monetary value overall, making no adjustment for the differing values of money. This common practice is indefensible. Since there is some small chance of correcting it, I stressed this objection in the report. I was even able to carry my objection through to the SPM of WG3, as I shall explain.

Economics has another failing as a means of judging values. It has no way of taking account of non-human values such as the suffering of animals. Economists sometimes assume that the suffering of animals is bad only because it distresses people, so people are willing to pay money to reduce it. This is obviously false, but I am sorry to say I was not able to give this failing much attention in the report.

## Cooperation with Economics

One of the lessons I learned through my work on climate change is that philosophy needs to cooperate with other disciplines. Philosophy is immensely influential. Much of the modern world has been built on the thinking of philosophers: science grew out of philosophy, liberalism arose from philosophical thinking, and so on. But philosophy's influence generally propagates slowly. A few lay people read the writings of philosophers and the message gradually filters through to the general public. Philosophy can influence the world's response to climate change, too, but we cannot wait for its usual slow propagation. The problem is too urgent.



Instead, we have to work with a discipline whose influence is more rapid: I mean economics. Economists have the ear of governments and other institutions. And economists share with philosophers an interest in some of the same subjects, including aspects of value theory relevant to climate change. For example, they are interested in the value of preserving human life and the relative values of present and future goods.

Economists have a confused attitude to value. Although they make judgments of value all the time, they often think they should not. Look at the following remark from the *Synthesis Report* of the IPCC's Third Assessment Report, published in 2001. This is the work of natural scientists more than economists, but it reflects a view that is widely held by economists, too:

Natural, technical, and social sciences can provide essential information and evidence needed for decisions on what constitutes “dangerous anthropogenic interference with the climate system.” At the same time, such decisions are value judgments determined through socio-political processes.<sup>2</sup>

(IPCC, 2001, p. 38)

So judgments of value are supposed to be determined through ‘socio-political processes’ rather than by intellectual effort, as other judgments are. The IPCC at that time evidently thought of people’s judgments of value as similar to tastes: not to be assessed as right or wrong. Many natural scientists and economists are still in thrall to the logical positivists. Economists who think this way see their work as a sort of democratic aggregation of the value judgments of individuals (see, for example, Weitzman 2007).

But other economists think differently. Compare this passage, which I managed to insert into the recent *Synthesis Report*:

Decision-making about climate change involves valuation and mediation among diverse values and may be aided by the analytic methods of several normative disciplines. Ethics analyses the different values involved and the relations between them.... Economics and decision analysis provide quantitative methods of valuation which can be used for estimating the social cost of carbon, in cost–benefit and cost–effectiveness analyses, for optimization in integrated models and elsewhere. Economic methods can reflect ethical principles.

(IPCC, 2014b, pp. 76–77)

Economics makes ethical claims and must be founded on ethics. The job of economists is to recommend and assess economic policies and actions. They say that governments ought to do this or that, or that this policy is better than that one. ‘Ought’ and ‘better’ here can only mean ‘ethically ought’ and ‘ethically better.’



Many economists recognize that economics is founded on ethics. For example, the *Stern Review of the Economics of Climate Change* (Stern, 2007) says so explicitly. These economists are interested in moral philosophy and are willing to work with philosophers. The ethical arm of economics is oddly known as ‘welfare economics.’ There is no boundary between philosophy and the deeper reaches of welfare economics. For example, the welfare economics of equality and the philosophy of equality merge together. When I started work for the IPCC, I expected to be fighting continual battles with economists. But actually I found the economists I dealt with cooperative. I think it helped that I have a PhD in economics.

When we came to write the SPM, the important affinity between economists and philosophers became increasingly apparent. I found myself in close alliance with economists, and particularly with the philosophically minded economist Marc Fleurbaey. The affinity is that our respective disciplines are each strongly analytical. We aim at tight, sharp argument. We like to say things precisely and demonstrate them rigorously. In writing the summaries for WG3, we came in contact with other social scientists who think differently. Conflicts arose between those who tried to be definite and those who wanted to soften our statements by caveats and qualifications. I like to use each paragraph in a text to say one thing and, if qualifications are needed, to add them separately. An alternative style is to say everything in one paragraph, replete with ‘although’ and ‘perhaps’ and other sorts of vagueness. The economists and the philosophers generally favored the first approach, and others the second.

## The Chapter

We philosophers got on well with our colleagues in Chapter 3 of the report. This was partly achieved simply by mutual forbearance. I wrote my sections of the report without much interference from other authors, and I did not interfere with theirs. The process of writing started with bidding for space. I thought we did well in the bidding. But now that I count the pages in the report, I see we ended up with only 5 percent of our chapter, which is definitely less than our fair share. I think this must have been the result of prolix writing toward the chapter’s end. We philosophers did at least have a prominent place near the beginning, and we wrote concisely.

At one point, the leader of our chapter, Charles Kolstad, tried to abolish private fiefdoms within the chapter. He ruled that each section should be revised by someone who had not written it. My section was revised by one of my economist colleagues, who tolerantly allowed me to revise it all back again later. Nevertheless, the detrimental effect of writing by committee does show in the final result. The prose is not always good, and our chapter is longer than many books. It covers many topics, which are not welded into a coherent structure.



I look enviously on the chapter on discounting that appeared in the IPCC's Second Assessment Report (IPCC, 1996, Chapter 4). It is only four and a half pages long, followed by a longer technical appendix. Those pages set out very neatly a classification of theories of discounting into 'prescriptive' and 'descriptive' theories. This chapter became very well known. It stimulated a renewed interest among economists in the theory of discounting. I do not agree with that chapter's classification of theories. All theories of discounting are prescriptive: they prescribe to governments how they should discount future good. But I wish IPCC reports had remained vehicles for such clear summaries of particular subjects, rather than the monstrous compendiums they have become.

## The Summary for Policymakers

Eventually we moved on to summaries. The huge main report of the IPCC attracts relatively few readers. It is the SPMs of the working groups that count. These are only a few dozen pages long, so there is strong competition for space, under the guise of cooperation. In the closing stages of writing the SPM of WG3, drafts circulated among authors by e-mail. Each of us would make changes according to our views. We used Word's facility for 'track changes,' but it was undiplomatic to reverse another author's changes. As changes piled on changes, there would come a time when some author would clear the clutter by accepting all the changes. Then the circulation would start again.

It was important, if possible, to be the last author to make changes before each deadline given us by the secretariat (known as the 'Technical Support Unit' or TSU). That was not easy for someone working in Britain, when there were also authors in the US. Furthermore, our deadlines never seemed final. The TSU would unexpectedly add another few days, so the exhausting process would begin again.

Once, at a meeting about the SPM in Potsdam, we were trying to think of a good opening sentence. I proposed: "Avoiding dangerous interference with the climate system is still possible but will be hard and costly." That is an accurate statement of WG3's conclusions. However, my suggestion was instantly shot down. The grounds were that you simply cannot have a short, sharp statement like that in an IPCC report.

There was a reason for this that I did not fully appreciate at Potsdam. More experienced IPCC authors knew what was coming. The report has to be approved by governments. The main report and its Technical Summary are approved (or not) as a whole. But the SPM is approved 'line by line.' This means that delegates from any of the 195 governments that make up the IPCC can edit or reject anything that the authors write in the SPM. There is therefore no point in including sentences that governments will predictably reject.

It is easier to get vague and uncontentious remarks past the governments. On the other hand, we wanted to tell the whole truth. So the writing of SPM was



an exercise in compromise, which began to be fought out even before the governments saw a draft. Even at that stage the message began to be weakened. Self-censorship was in progress.

It is important to understand that this happened only to the SPM. It is sometimes claimed that the IPCC reports are subject to political influence. But the main reports and the Technical Summary are entirely the work of the authors; the government delegates have no influence on their content. Moreover, delegates cannot insert anything into the SPM that is not validated by authors. However, they can remove content from the SPM. Everything in the SPM has to be accepted by consensus, which gives the delegates the ultimate power of veto. They use it.

## Approval

The approval process for the SPM was almost incredible. Until I saw it, I did not believe a report could be edited in detail at a plenary session of hundreds of delegates from across the world. About 120 countries sent delegations, ranging in number from one to more than a dozen. We all gathered in a conference room holding several hundred people in a vast hotel in Berlin. In a way, it was flattering to me as an author to have so many people paying such careful attention to the details of what I had written.

Five days, Monday to Friday, were allocated to approving the SPM. However, Friday was not required to end at the conventional time of midnight. The meeting went into continuous session on Friday morning, with short breaks for meals, and did not stop until more than 24 hours later.

The process relied on someone on the podium who was very adept at typing amendments into text and using track changes. Projected on the screen at any time was a segment of the text, with the particular sentence under discussion highlighted in yellow. The discussion of each sentence continued, and amendments were made, until there was consensus on it among the delegates and authors. Then the chair of the session would bring down his gavel and the highlighting would turn to green. A green sentence was not supposed to be reconsidered. This process continued until the entire SPM had received approval by consensus.

At first I was amazed at the lack of cooperation shown by the delegates. It was plain from the start that it would be very hard to approve the whole SPM in the time available. There was a gauge behind the podium that showed the proportion of words approved compared with the proportion of available time expended. Even by 6:00 p.m. on Friday, when in theory the meeting should have wound up, it showed that only 50 percent of words had been approved. Yet the delegates wasted time and made pointless comments.

On Monday, each delegation that spoke started by saying, “Mr Co-chair, since this is the first time my delegation has spoken at this meeting, I would like



to thank the government of Germany for its generous hospitality, and the authors of the report for their excellent work.” When 100 people repeat this formula, it occupies a lot of time. However, it was explained to me that the delegates were deliberately marking time through most of the week because they knew that all the action, and all the dirty work, would be on Friday night.

## Opening

There were opening speeches on Monday morning. Christiana Figueres, executive secretary of the UNFCCC, took the trouble to mention that now, for the first time, philosophers were serving as authors of the IPCC.

Business started when co-chair Ottmar Edenhofer projected on the screen for consideration, highlighted in yellow, the first words of the report. These were ‘Section 1. Introduction.’ Immediately many countries flagged up their desire to comment. They did not really want to object to these words, but they wanted to make a complaint. The governments had been sent a draft of the SPM, and some had sent detailed comments in reply. But after the draft had been sent out, Section 1 and the theoretical Section 2, which I was involved in, had been substantially rewritten by the TSU. I think this was self-censorship again: the TSU had been worried that the beginning of the SPM was too direct and unqualified to be acceptable to governments. So the governments arrived in Berlin and found they had commented on a draft that had been deleted and they were facing a new draft they had not seen before. That made them unhappy.

Section 2 came up toward the end of Monday morning and was immediately in trouble. Largely because of its ethical content, it was perhaps the most controversial section of the SPM. Some countries wanted ethics excluded entirely from the IPCC. I particularly remember an intervention from the UK delegate. He congratulated the authors on having coped so well with the difficulty of introducing broad and complex issues of ethics into the SPM. However, he said, these issues were actually too broad and complex to be fitted into a short report, and he therefore proposed that the ethical parts of the text should be deleted. I am British and I assume (but do not know) that the UK government nominated me as an IPCC author, so this seemed like a stab in the back.

The IPCC chairman, Rajendra Pachauri, soon intervened to send Section 2 to a ‘contact group.’ We (authors of the section) were sent to another room to hammer out a text with the relatively small number of delegates that chose to join us.

## Contact Group

We took three and a half days, from 8:00 a.m. till midnight, to perform our task. In that time, we produced only two pages of the SPM. Through those days,



again and again, we would write a draft, then present it to the contact group, garner comments, and produce another draft.

In the room, the delegates had different styles. The US delegate was constantly on the phone to Washington. The Saudi delegate looked disgruntled and said little. The UK delegate stared at the ceiling. Others shuttled about making deals. Months later, I was shown a comment about me from the diary of a Netherlands' delegate, Arthur Petersen. I think it illustrates how alien the philosophers' deliberative approach to questions can seem to other people:

Later during the day, when we convene in the evening in the contact group, the philosophy professor has developed a unique *modus operandi*. He never indicates immediately the adjustments he will propose. He only says that he has listened carefully, has learned much from it, and has to ponder it a bit. He also says he does not master the technique of making a new text in track changes. And so, we get a lecture with a whole new text. Unbelievably, this man seems to get away with it. But he speaks such beautiful English and he really knows what he is talking about. I become a bit milder and I must admit the text has improved somewhat, with less normative terms and more references to the related chapter.

## Success

The disagreements in the contact group were between different governments rather than between authors and governments. To a large extent, our role was to mediate the disagreements. True, we could have resolved them easily by emptying the section of content, but we did not want to do that. So we were searching for ways to preserve as much significant content as possible that the different sides could agree to.

Disagreement came to a head on Wednesday night over the most contentious paragraph on justice. At 10:00p.m. two huddles of delegates formed in corners of the room. One was a group of developing countries (by the UNFCCC's definition) led by Brazil and Saudi Arabia. The other was a group of rich countries led by the US. They were composing their own versions of a paragraph about justice. We, who would become the nominal authors of the paragraph, sat and twiddled our thumbs.

At one time while this was going on, a more senior US delegate from the plenary session visited our room. I overheard him saying to his colleagues "Why don't we just delete this section on ethics and get on with more important stuff?" At 11:00p.m., we were presented with two alternative versions of the paragraph. We were told that one would be rejected by the developing countries and the other would be rejected by the rich countries. Brazil said to us quietly, "I advise you to stick very closely to our proposed text. There are not



really two options. Only one is possible. We are very close to deciding there will be no Section 2 in the report.”

By that time of night I was tired, but this explicit threat galvanized me. It added spice to the occasion, and the possible deletion of our section did not seem to me a bad thing. We would no longer be authors of the SPM. This would leave us free to talk to the press who were camped outside. Figueres drew attention to the presence of philosophy and ethics in AR5, and so did the IPCC’s press releases. Any country that deleted our contribution would look bad. It would seem not to care about ethics.

After the threat was issued, Fleurbaey told Brazil that we were thinking of resigning. This made the delegates suddenly more cooperative. They did not really want us to go. Consequently, agreement was reached following some shuttle diplomacy between the two camps the next day, conducted by Fleurbaey and others. By Thursday evening we had consensus on a complete version of the section.

It had still to be agreed upon at the plenary session. It was brought to plenary at 1:20 a.m. on Friday morning. Edenhofer, in the chair, reminded the meeting that, since the whole text had been approved after detailed consideration in a contact group, there should be no reason for any intervention. Nevertheless, when he read the first sentence, Tanzania proposed a perfectly pointless amendment to it. Edenhofer came down on Tanzania so heavily that thereafter there was not a whisper from the room. The whole text was approved without any further objection and was applauded as a result.

We were lucky. Because ours was the first substantive section, we got three and a half days to negotiate a compromise text. By contrast, the next night, in the small hours of Saturday morning, as delegates came under pressure from the need to sleep and to catch their flights home, important parts of the SPM were deleted wholesale. These were sections where no compromise had been achieved. I was shocked to see this destruction. I have told the story of it elsewhere (Broome, 2014).

## Ethics in the SPM

My own chief concern in Berlin was just three paragraphs of the SPM that were explicitly about ethics. The SPM contains virtually no other mention of ethics. I reproduce here the version of those paragraphs that finally emerged (the bold headings are in the original):

**Issues of equity, justice, and fairness arise with respect to mitigation and adaptation.** Countries’ past and future contributions to the accumulation of GHGs [greenhouse gases] in the atmosphere are different, and countries also face varying challenges and circumstances, and have different capacities to address mitigation and adaptation. The



evidence suggests that outcomes seen as equitable can lead to more effective cooperation.

**Many areas of climate policy-making involve value judgements and ethical considerations.** These areas range from the question of how much mitigation is needed to prevent dangerous interference with the climate system to choices among specific policies for mitigation or adaptation. Social, economic and ethical analyses may be used to inform value judgements and may take into account values of various sorts, including human wellbeing, cultural values and non-human values.

**Among other methods, economic evaluation is commonly used to inform climate policy design.** Practical tools for economic assessment include cost–benefit analysis, cost-effectiveness analysis, multi-criteria analysis and expected utility theory. The limitations of these tools are well-documented. Ethical theories based on social welfare functions imply that distributional weights, which take account of the different value of money to different people, should be applied to monetary measures of benefits and harms. Whereas distributional weighting has not frequently been applied for comparing the effects of climate policies on different people at a single time, it is standard practice, in the form of discounting, for comparing the effects at different times.

*(IPCC, 2014a, p. 5)*

The first of these paragraphs is the feeble remnant of the disputed paragraph on justice. It is not empty. Indeed it is a major concession on the part of several countries to acknowledge that justice is at stake in determining the different responsibilities of governments toward climate change. It even recognizes that past emissions count, which the US has tried to deny. The second paragraph recognizes that climate change is an ethical matter, and that the academic discipline of ethics can contribute to determining what ought to be done about climate change. These two paragraphs are small beginnings, but it is an advance on the part of the IPCC simply to recognize that philosophical issues and philosophy as a discipline have a place in decision-making about climate change.

The third paragraph is more substantive. It is the one I am most proud of. It went through the contact group without much trouble. Perhaps this is because it is rather technical, and the delegates may not have been clear on what it means. It says that the standard methods of cost–benefit analysis used by economists are not justified by ethical theory. The weighing of costs and benefits should apply ‘distributional weights,’ which adjust for the different values of money to different people. Costs and benefits are initially measured in money, but money is worth less to rich people than to poor people. So in assessing the value of policies, the money of the rich should be down-weighted. Standardly, economists do not make this adjustment among contemporary people. As the last sentence of the paragraph points out, they do make it between different



times; this is their most common theoretical argument for discounting future goods. So not only is their practice wrong; it is inconsistent.

Recognizing the need for weighting makes a great difference. By and large, the benefits of emitting greenhouse gases accrue mostly to the world's rich and the costs are borne mostly by the poor. The benefits of reducing emissions accrue mostly to the poor and the costs mostly to the rich. In evaluating means of reducing emissions, taking account of the different values of money to different people will shift weight from the costs to the benefits. It promotes the reduction of emissions.

This is scarcely a conclusion of philosophy rather than of good economics, or even of good sense. But the SPM is only a list of points, so it inevitably has no room for substantial philosophy. Remember that, because of the IPCC's extraordinary approval procedure, anything that appears in the SPM has been accepted by every country in the world, or at least by every country that sent delegates to the approval session. So every country has agreed that the standard economists' methods of valuation are mistaken. I think this is notable.

Moreover, the countries took note of it. The words of the SPM acquire a special authority in subsequent international negotiations on climate change. This was brought home to me at the approval session for the *Synthesis Report*, which I attended some months later in Copenhagen. I carried some text from the SPM of WG3 through to the *Synthesis Report*. But because the text was a compromise made in the political atmosphere of the contact group, I was not happy with the prose. I tried to improve it. However, a Saudi delegate in Copenhagen noticed the textual changes and insisted on restoring the original wording, because that was what had been agreed in Berlin. I had my own prose quoted back to me. The Berlin text had acquired an immutable authority.

## The *Synthesis Report*

After the Berlin meeting, my work shifted to the *Synthesis Report* and its approval session in Copenhagen. Since I was now working with many natural scientists as well as social scientists, there was less room for philosophy. At the meetings, I saw myself, more than anything else, as an advocate for sensible ideas from outside science.

Here is an example. Traditionally, the IPCC expresses its scientific conclusions in terms of likelihoods: it is extremely likely that human beings have caused observable climate change, it is likely that warming will be less than two degrees if cumulative emissions remain below one trillion tonnes of carbon, and so on. But elementary decision theory, which is not part of science, is that decision-making should not depend on likelihoods alone. The right decision to make is not necessarily the one that is likely to have the best result. For example, a ship should carry lifeboats, even though it is unlikely that they will ever be used to save lives. The reason is that, in the very unlikely event of the



ship's sinking, the result will be dreadfully bad if it has no lifeboats. In determining whether to carry lifeboats, this badness should be discounted by its small probability, but even so it outweighs the cost of the lifeboats. This example is no more than common sense, but decision theory goes further. It tells us that decisions should be based on mathematical expectations of value. The likelihoods stated in IPCC reports are insufficient for good decision-making.

To calculate expectations of value we need to know two further things. First, we need to know whole probability distributions, not just the likelihoods of particular events. For example, we need to know, not just what degree of global warming is likely, but what probability to attach to each degree of global warming that might occur. Second, we need values. For example, we need to know how bad each particular degree of warming would be, were it to occur. This second requisite can be met only by deploying a theory of value, which is in the domain of philosophy and far beyond science. Science can in principle satisfy the first requisite, by determining probability distributions for degrees of warming and other variables. However, full distributions are hard to extract from the available climate data. This explains why distributions did not appear in IPCC reports before AR4.

At *Synthesis Report* meetings I often pressed the point that we need to go beyond likelihoods. And, indeed, the *Synthesis Report* of AR5 recognizes this point, at least to the extent of giving attention to the possibility of unlikely but very bad events. The unlikely possibility that climate change will destroy our civilization may be more important than the less bad consequences that are much more likely, because it would be so very bad (see Weitzman, 2009). The *Synthesis Report* says, "Because risk involves both probability and consequence, it is important to evaluate the widest possible range of impacts, including low-probability, high-consequence impacts that are difficult to simulate" (IPCC, 2014b, p. 58). This is a step forward for the IPCC. I wish I could claim credit for it, but I cannot; the IPCC was taking this step anyway without my pressing it.

On matters of ethics, I carried into the *Synthesis Report* as much as I could from the SPM of WG3. Since this text had already been approved in Berlin, delegates were not able to object to it in Copenhagen. For instance, the SPM of the *Synthesis Report* includes the sentences: "Mitigation and adaptation raise issues of equity, justice and fairness. Many of those most vulnerable to climate change have contributed and contribute little to GHG emissions." What the delegates could do is dilute the messages by inserting anodyne words and sentences. The substance survives in the report, but to find it you have to cut through the dross.



## Conclusion: Lessons for Philosophers

I am pleased the IPCC decided to give a small place to philosophy in the AR5. The need for it is obvious to philosophers, but many non-philosophers among the IPCC authors and delegates were puzzled by the presence of philosophers. Indeed, many were unclear what philosophy is.

I was surprised at just how alien the methods of philosophy seemed to many natural and social scientists. They lack our patience with argument. We take it for granted that questions should be thought through with high analytic precision, and we go where the arguments lead us. But they often think we are pointlessly picky about precise meanings and points of logic. For example, many philosophers are concerned about the implications of the nonidentity effect—the fact that changing government policies toward climate change will change the identities of the people who will come into existence in the future. The report of WG3 contains a brief discussion of the relevance of the nonidentity effect for the theory of justice toward future generations. But more than one social scientist took me aside to tell me that no one would take this discussion seriously. They found no fault with the arguments; they just did not want to hear them.

Nevertheless, I think we managed to demonstrate that we have a contribution to make. The SPM of WG3 says that, “Social, economic and ethical analyses may be used to inform value judgements.” ‘Ethical analyses’ are explicitly recognized as useful.

In part, I think we achieved some recognition because I was able to talk easily to economists. It helped a great deal to be able to speak a language that was familiar to my colleagues. I hope this allowed me to bring some accurate, sensible thinking to our discussions—the sort of thinking philosophers are devoted to—quite apart from the small amount of substantive philosophy I was able to introduce.

In sum, as philosophers we think in a different and more concentrated way than other people do. This is exactly why we can make an important contribution. But it sets us apart from our colleagues and gives us a hurdle to overcome. To work effectively in the public domain, we have to find a way of overcoming it.

## Acknowledgments

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## Notes

- 1 I apologize for all the abbreviations I use.
- 2 The quoted phrase comes from Article 2 of the *United Nations Framework Convention on Climate Change* (1992), which specifies the convention's aim. It says, in part, "The ultimate objective of this Convention ... is to achieve ... stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."

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# 8

## PHILOSOPHY AND SCIENCE POLICY

### A Report from the Field

*J. Britt Holbrook*

One way to conceive of field philosophy is to compare it to other areas of philosophy. Experimental philosophy (x-phi) provides a fine contrast. Both x-phi and field philosophy (f-phi) go beyond the traditional bounds of the discipline of philosophy and may be considered inter- or trans-disciplinary fields (Holbrook 2013). Both may be characterized as experimental. Yet, what it means to be experimental differs markedly between the two approaches. X-phi is experimental insofar as it uses non-philosophical methods (borrowed from science, often cognitive science) to perform (so-called ‘actual’) experiments designed to answer traditional philosophical questions (cf. Appiah 2007). Field philosophy, on the other hand, uses traditional philosophical methods (conceptual analysis, dialogue, hermeneutics, etc.) to answer questions raised by non-philosophers (cf. Frodeman and Briggie 2016). In the case of x-phi, philosophers become quasi-scientists in order to perform experiments. In the case of field philosophy, the experiment is to determine whether the philosopher *qua* philosopher might be helpful in ways others have not considered.

This chapter discusses an experiment in field philosophy performed by the Center for the Study of Interdisciplinarity (CSID) at the University of North Texas (UNT) from 2008–2012. CSID itself was something of an experiment; it existed between August 2008 and December 2014. I was Assistant Director and one of the editors of this book (Frodeman) was Director (Holbrook and Frodeman 2008). I am far from a neutral observer. In what follows, I aim to present CSID’s experiment as it happened, from my own vantage point. The chapter is not an autobiography, but rather a report from the field. The experiment reported on is a foray on the part of philosophers into the field of science policy.



## The Science of Science Policy Meets the Philosophy of Science Policy

At the 30th Annual AAAS Forum on Science and Technology Policy in April 2005, President George W. Bush's Science Advisor, Jack Marburger, issued a call for "a new interdisciplinary field of quantitative science policy studies" (Marburger III 2005). Marburger's argument was simple: if science policy studies is a branch of economics, then science policymakers ought to have access to the same types of data, models, and econometric tools that economists routinely provide to policymakers in other realms. Marburger's argument was also effective: the US National Science Foundation (NSF) soon initiated the Science of Science and Innovation Policy (SciSIP) Program. SciSIP was designed to create a new field—the Science of Science Policy—that would provide policymakers with just the sorts of data, models, and tools that Marburger had requested.

SciSIP officially began soliciting proposals in FY 2006, and the FY 2007 request for proposals (NSF 07–547) explicitly solicited proposals to develop Models (MOD) or Tools (TLS) to assist science policy decision making. All proposals were required to pick one of these two areas of emphasis on which to focus. The then proto-CSID team of Frodeman (as Principal Investigator, PI) and Holbrook (co-PI) was joined by co-PIs Carl Mitcham (Colorado School of Mines), William Moen (UNT), and Warren Burggren (UNT) on a proposal to develop an assessment of existing models for integrating considerations of the broader societal impacts of proposed research into the grant proposal review process. "SciSIP MOD: A Comparative Assessment of Models for Integrating Societal Impacts Concerns into the Peer Review of Grant Proposals" (Award #0830387, \$393,688.00) was funded by NSF's SciSIP Program in September 2008. The now fully-fledged CSID team shortened the name of the project to the Comparative Assessment of Peer Review (CAPR, pronounced like the edible flower bud of *Capparis spinosa*—caper—and evoking the homonymous playful activity).

CAPR was the natural extension of an earlier grant (Award #0649573, \$24,962) that funded a workshop co-organized by Frodeman, Mitcham, and myself on "Assessing the Broader Societal Impact of Funding Techno-Scientific Research," held in Golden, Colorado in August 2007. The workshop focused on NSF's own attempt to integrate societal impacts concerns into the peer review of grant proposals using its Broader Impacts Merit Review Criterion. This chapter is not the place to rehash the history of NSF's Broader Impacts Criterion. That work has already been done (Holbrook 2005, 2012). However, it is important to describe some of the background here in order to understand the issues that CAPR was designed to address.

I had begun working for Frodeman as his postdoc on January 3, 2005, having received my PhD in philosophy from Emory University in August 2004. My



training had been in the history of philosophy, and I had just defended my dissertation—a Nietzschean answer to Alasdair MacIntyre’s critique of Nietzsche as a moral philosopher. At the time, I had absolutely no experience or training work with scientists, engineers, and policymakers—qualities that had been specified in the advertisement for the job. Why Frodeman actually hired me may forever remain a mystery, even to him. However, I am firmly convinced that my willingness to throw myself wholeheartedly into the experimental nature of field philosophy set me apart from the other applicants for the position. I would later classify this sort of event under the rubric of serendipity, which for me goes beyond blind luck and entails sagacity—or a sort of practical wisdom—regarding opportunity (Holbrook 2017, 2019).

On my first day of work, Frodeman was busy. He had just begun his second semester as Chair of UNT’s Department of Philosophy and Religion Studies. My job was to make his job easier. We met early that morning and he outlined several topics he wanted to address but, at that time, lacked the leisure to pursue fully. Among the options was what to make of NSF’s Broader Impacts Criterion. Having been on several review panels, Frodeman had seen reviewers who had little difficulty judging the intellectual merits of proposals react with puzzlement when asked to assess proposals on their potential benefits to society. Why was that?

At that time, I was completely ignorant regarding NSF and their review process. However, this issue struck me as interesting, and one of the things Frodeman wanted me to learn was how to put in grant proposals to NSF. So, this topic seemed like a win–win—not only would I strike out on an unexplored path (for me, although no one, as it turned out, had yet paid any scholarly attention to this issue), but I would also learn something about how proposals were reviewed at NSF. I began working on the problem that day.

The first thing I did, of course, was to consult the *Philosophers’ Index*. Unfortunately, at that time UNT’s library did not have access to it. While I waited to get access, I devoted myself to reading in the fields of Science and Technology Studies and the Policy Sciences. While I was doing all this reading, it took me a couple of weeks to find my way around NSF’s website. What had seemed to me at the time to be a great obstacle—not being able to begin a literature review with my preferred scholarly database—turned out to be an incredible stroke of luck. I did my best to take full advantage of it.

I discovered that NSF was quite aware of the issue Frodeman had noticed. In fact, awareness of the problem of both proposers and reviewers neglecting NSF’s Broader Impacts Criterion and favoring its Intellectual Merit Criterion was widespread throughout the Foundation. The National Academy of Public Administration (NAPA) had issued a report for NSF in 2001 that described the Broader Impacts Criterion as raising “philosophical issues” for many reviewers, but it had concluded that it was too early at that time to issue a final judgment on the effectiveness of the criterion (NAPA 2001; Frodeman and Holbrook



2005). The time seemed ripe for a re-examination of the problem. I suggested to Frodeman that we should put in a grant proposal to get NSF funding to support our research. His first reaction was that it was crazy to put in a proposal that quickly (the due date was February 22nd, about a month from when I suggested it); his second reaction was to tell me to go for it.

I submitted a proposal that February, which was declined. I submitted a revised proposal in August, which was also declined. I submitted a rerevised proposal the following February (2006). That proposal was also declined. All had proposed that I undertake research on the topic of NSF's Broader Impacts Criterion on my own, with the support of a NSF Scholar's Award. Finally, the NSF Program Officer (Rachelle Hollander) suggested that, instead, I put in a proposal for a research workshop on the topic. Despite the fact that I had published the first scholarly article on the subject in October 2005, there was some doubt among reviewers that the topic was of sufficient scholarly interest. Having a group of scholars agree to come to a workshop on the Broader Impacts Criterion would lend more scholarly weight to the topic. I submitted a proposal for such a workshop in August 2006 and was happy to hear six months later that the proposal had been funded.

Although I was PI on this grant, with Frodeman as co-PI, both Frodeman and Carl Mitcham took equal parts in planning the workshop. This made sense, given that I had never planned a workshop before. This is not to say that I had no opinions or kept quiet. I did, however, defer to my more experienced colleagues (learning a great deal in the process). We decided together which participants to invite and Mark Frankel, who was Director of the Scientific Freedom, Responsibility, and Law Program of the American Association for the Advancement of Science (AAAS), had agreed to co-sponsor the workshop and also suggested several names.

Looking back on the participants now reveals a who's who list of stars, veterans, and up-and-comers. In addition to Frankel, Frodeman, and Mitcham, participants included: Sheila Jasanoff, Steve Fuller, Nick Steneck, Susan Cozzens, Stephanie Bird, Dave Guston, Clark Miller, Erik Fisher, Heather Douglas, Adam Briggie, and Kristen Intemann, among others. Several of these later contributed articles to a special issue of *Social Epistemology* dedicated to the topic of NSF's Broader Impacts Criterion (Holbrook 2009). They were joined in the special issue by Barry Bozeman, Craig Boardman, Bruce MacFadden, Nancy Tuana, Carol Lynn Alpert, Melanie Roberts, Simone van der Burg, and others.

Of particular note is the number of people mentioned above who self-identify as philosophers—no fewer than seven, and one could plausibly claim a few more of the STS (science and technology studies) types. By 2009, I think it is reasonable to claim that the philosophy of science policy—which had been spearheaded by Frodeman and Mitcham (see, for instance, Frodeman et al. 2003, 2004; Mitcham and Frodeman 2004)—was fully-fledged.<sup>1</sup> This is not to



denigrate the work of other philosophers who had done what I would term policy-relevant research, some published before 2003; but most other philosophers doing policy-relevant research—e.g., Heather Douglas (1998) wrote a dissertation that was relevant to science policy—directed it mainly toward other philosophers; or they focused on one field in particular, such as bioethics. Field philosophy is, I think, actually an offshoot of the push for the philosophy of science policy (perhaps one that has begun to take root and flourish beyond the original plant). But field philosophy applies everywhere, unlike bioethics or even philosophy of science policy, which are limited to particular areas.

The question of audience looms large for field philosophy, in part because of lessons learned from our experiences in bringing the philosophy of science policy into dialogue with the science of science policy. When I first began researching NSF's Broader Impacts Criterion, I believed that our audience consisted of scientists and engineers who were putting in and reviewing proposals for NSF grants. The more research I did, the more I heard that scientists and engineers were confused by the Criterion and just could not figure out its meaning. There were, in fact, legitimate philosophical difficulties involved in attempting to come to terms with the notion of Broader Impacts. Perhaps the most obvious, and most vexing, problem was the fact that Vannevar Bush (1945) had defined the type of research that NSF funds—so-called 'basic' research—in *opposition* to its impact on society. Although basic research was *necessary* for all sorts of benefits to society, Bush (1945) wrote: "Basic research is performed without thought of practical ends.... Basic research is a long-term process—it ceases to be basic if immediate results are expected on short-term support." So, it was understandable that scientists had difficulty understanding why NSF was asking them to discuss the practical ends of research performed without thought of practical ends.

Yet, whenever I presented on my research at professional conferences, the people who asked the most questions and stayed afterward to talk and give me their business cards were usually not perplexed scientists. One *might* suppose that this was due to the fact that I was making presentations at philosophy conferences—but one would be wrong. Thinking that our audience was scientists and engineers, I presented at scientific conferences. But the people most interested in our research were actually those who worked at science and technology *funding agencies* around the world. What gradually became obvious to us was that it was not scientists and engineers, in general, who wanted to understand issues surrounding NSF's Broader Impacts Criterion. It was people working at NSF and other funding agencies who had essentially followed NSF's lead in asking proposers and reviewers about the broader societal impacts of the research they funded!

We had made an easy mistake and misidentified our audience. Once we finally realized that science and technology policymakers, rather than people working as scientists and engineers, had a problem they wanted our help with,



we shifted our focus. We had previously been funded by the Ethics and Values in Science and Technology Program at NSF to do scholarly research on the Broader Impacts Criterion. We now saw clearly that it was policymakers who were asking for our help to understand how best to incorporate societal impacts considerations into the grant proposal review process. So, the idea for CAPR was born, and we decided to submit the proposal not to the Ethics and Values Program, but to SciSIP.

## The Comparative Assessment of Peer Review as Field Philosophy

CAPR was a natural follow-up to the workshop. We had discovered that funding agencies around the world not only had incorporated societal impacts criteria into their own peer review processes, but also had experienced resistance to those criteria from proposers and reviewers. CAPR examined six different approaches to incorporating societal impacts considerations across three US federal agencies—the NSF, the National Institutes of Health (NIH), and the National Oceanic and Atmospheric Administration (NOAA)—and similar procedures at three non-US agencies—the European Commission (EC) Framework Programmes, focusing on the seventh (FP7), the Natural Sciences and Engineering Research Council of Canada (NSERC), and the Dutch Technology Foundation (STW). In addition to speaking with funding agency officials at each of these agencies, we held two workshops—one in Washington, DC and the other in Brussels—in order to bring researchers on peer review and funding agency officials together to engage each other.

Frodeman and Briggie (2016, p. 124) suggest that there are six “definitive characteristics” of the field philosopher:

- Goal: help excavate, articulate, discuss, and assess the philosophical dimensions of real-world policy problems.
- Approach: pursue case-based research at the meso-level that begins with problems as defined and contested by the stakeholders involved.
- Audience: the primary audience consists of non-disciplinary stakeholders faced with a live problem. Knowledge is produced in the context of use.
- Method: rather than a method, we speak of rules of thumb, a pluralistic and context-sensitive approach with a bottom-up orientation.
- Evaluation: context-sensitive standards for rigour, and non-disciplinary metrics for assessing success, which in the first instance is defined by one’s audience.
- Institutional placement: field philosophy resides on the margins of existing institutions, shuttling between the academy and the larger world; but also seeks to institutionalize itself both within academia and different communities of practice.



I will reserve the question of *evaluation* for the following section and return to the question of *institutional placement* at the end of this chapter. In the present section, I discuss how well CAPR's goal, approach, audience, and method fit with Frodeman and Briggles's description of field philosophy.

CAPR's *goal* was to help policymakers in government and government agencies around the world address issues surrounding the incorporation of societal impacts criteria into the peer review of grant proposals.

It was Congress that had directed NSF to contract with NAPA to issue their 2001 report on the Broader Impacts Criterion (Holbrook 2012). After the Broader Impacts workshop in Golden, Frodeman, Mitcham, and I had a phone conversation with an NSF official, who wanted to know what "national needs" the Broader Impacts Criterion was best suited to meet. Just after the workshop, Frodeman and I had published an article in *Professional Ethics Report* (Holbrook and Frodeman 2007), which was edited by Frankel under the auspices of the AAAS. One passage from that piece is worth quoting here:

In a development that occurred independently of our research workshop planning, on August 9, 2007, the America COMPETES Act (H.R. 2272) was signed into law (Public Law 110–69). The America COMPETES Act (in Section 7022) requires the Director of NSF to issue a report to Congress "on the impact of the broader impacts grant criterion used by the Foundation" within one year of the date of enactment of the Act.... Although America COMPETES was not part of the original motivation for our workshop, workshop participants did discuss its impending passage and agreed that our research represents an important potential source of independently gathered information of value to NSF and the Director in answering this Congressional charge. Some participants suggested that our discussions might also be of interest to members of Congress.

(Holbrook and Frodeman 2007, p. 3)

Whether we had any information that could be helpful in writing this report to Congress was not discussed during the phone call. Instead, various candidate "national needs" were proposed by the NSF official for our comment. Although we allowed that some of the proposed national needs could conceivably be met by activities that would satisfy the Broader Impacts Criterion, our judgment at the time was that such a list would unnecessarily stifle proposers' creativity in responding to national needs, and that national needs are not themselves predictable enough to be contained by a list. The list might be incomplete, or our needs might change. We suggested that the criterion as then written—asking, as it did, for potential benefits to society—was already well-suited to allowing for all sorts of activities that would meet the widest possible scope of national needs. The NSF official thanked us for our input and said goodbye. We moved on to



working with other agencies that had indicated the need for to address the issue in their own context.

CAPR's *approach* was to treat each of the different agencies we studied as their own case, although we later came to offer comparisons of the different cases as a way of bringing the issues faced by different agencies into greater relief. We actually engaged with the agencies we studied in various ways. NSF, it turns out, was trying to figure out the best ways to respond to the America COMPETES Act. In February 2010, the National Science Board (NSB), the governing board of NSF, created a Task Force on Merit Review to re-examine NSF's process on Broader Impacts, including the criteria. Joanne Tornow, Executive Secretary of the NSB Task Force, contacted us to request 25 copies of the special issue of *Social Epistemology* that we had published in 2009 (Holbrook 2009) as a product of the Colorado workshop. Given the success of that previous grant, we held another workshop as part of CAPR, this time in Washington, DC, to allow for participation from NSF staff. We visited Europe and discovered that the EC was then making plans for its next Framework Programme (which later became Horizon 2020) and was interested in examining its own approach to societal impact. We had also visited other agencies in Europe interested in discussing the same issues, and were asked by the EU to hold a workshop in Brussels as well. We also invited Tornow, Executive Secretary of the NSB Task Force on Merit Review to attend (which she did).

CAPR's *audience* had become a mixed group of scholars working in STS and Science Policy circles, plus funding agency officials from around the world. The workshops in Washington, DC and Brussels brought these groups together so that academics could hear the concerns of funding agency officials. Not surprisingly, different agency officials had different concerns, many of which were quite specific to the context in which their own agencies operated.

CAPR's *method* was not to focus on producing 'generalizable knowledge' designed to fit every possible situation. Instead, we attempted to tailor our approach to various contexts. Sometimes, comparisons were helpful, and often different agency officials learned as much from each other as they did from us. While our role was to provide the occasion for meetings to take place, having academics there altered the context—these were still scholarly workshops, not business meetings. We did discover some general rules, though. For instance, vague criteria work best when an agency wants to maximize the creativity and autonomy of proposers. When an agency wants to make sure that specific impacts are targeted by funded proposals, it must specify what impacts are expected. This sort of intervention enabled agencies to see that they were making decisions about what they *valued*, rather than simply about policies to meet ends determined by legislators (who may not be very well acquainted with different funding agency cultures). Overall, I would characterize our 'method' as engaging (with) people in thinking. In other words, I do not think what we did actually counts as a method, but rather as a *manner*.<sup>2</sup>



I will return to this distinction between method and manner in the final section of this chapter, since I think it has implications for attempts to institutionalize field philosophy. But, at this point, I think CAPR fits rather well with Frodeman and Briggles' account of field philosophy. The goal was to address the philosophical aspects of—and, in particular, the values embedded in—different approaches to incorporating societal impacts considerations into the peer review of grant proposals. The approach was case-based and began with problems as defined by stakeholders in proposal peer review, with a focus on funding agency officials. The audience was a mix of academics and funding agency officials. And the method was context-sensitive and 'bottom-up,' in the sense that we took our lead from the stakeholders, rather than trying to fit them into some sort of preordained theory.

### Evaluating CAPR's Broader Impacts

Frodeman and Briggles (2016, p. 124) suggest that field philosophy requires standards of assessment different from those of traditional philosophy: "Evaluation [of field philosophy requires] context-sensitive standards for rigor, and non-disciplinary metrics for assessing success, which in the first instance is defined by one's audience." As discussed in the previous section, CAPR had multiple audiences with different needs. In the interests of space, in this section I will suggest ways to evaluate CAPR only in terms of an audience made up of NSF stakeholders, rather than attempting to assess CAPR from the perspective of all the agencies we engaged with. It is worth noting in passing that, evaluated by more traditional criteria—such as number of publications produced by the grant—CAPR also did pretty well: we produced ten publications, some of which are fairly highly cited.

This is not the place to go into detail about CAPR's scholarly impact, however. The question, insofar as CAPR is a case of field philosophy, is whether it achieved its goal vis-à-vis its audience. Put slightly differently, did CAPR manage to have a broader impact on society, specifically in terms of NSF? If so, how, and what was it?

Recall that CAPR took place while NSF was in the midst of a review of its Merit Review process. The NSB Task Force on Merit Review had been constituted in February 2010, in response, in part, to the fact that Congress had called out NSF, and specifically the Broader Impacts Criterion, in the America COMPETES Act.<sup>3</sup> The fact that the Task Force had requested copies of the special issue of *Social Epistemology* on the Broader Impacts Criterion suggested that NSF had some interest in our research.

Also in April 2010, we held a CAPR workshop in Washington, DC. Someone from NSF gave a presentation, and there were other representatives of NSF in the audience. It is worth stating explicitly that we held the workshop in Washington, DC to invite participation from interested parties. People from six



different funding agencies were on the program, and many of those agencies sent other people to the workshop. There were also attendees from several other agencies in Washington, DC. On the afternoon of April 23, after the workshop had ended, Frodeman and I also met with John Veysey, Senior Legislative Assistant to Representative Daniel Lipinski (Democrat-Illinois). Lipinski, then Chair of the Research Subcommittee of the House Science Committee, was at that time working on the next version of the America COMPETES Act, which would also have a section on NSF's Broader Impacts Criterion.

The original America COMPETES Act had asked NSF to provide a report to Congress that would, among other things, describe the national goals the Broader Impacts Criterion was best suited to promote. Our phone call with the NSF staffer after the Golden, Colorado workshop had focused on coming up with an answer to this question. H.R. 5116, which was the initial House version of the new America COMPETES Act, had been released on April 22. It contained the following directive to NSF:

Goals.—The Foundation shall apply a Broader Impacts Review Criterion to achieve the following goals:

- 1 Increased economic competitiveness of the United States.
- 2 Development of a globally competitive STEM workforce.
- 3 Increased participation of women and underrepresented minorities in STEM.
- 4 Increased partnerships between academia and industry.
- 5 Improved pre-K–12 [pre-kindergarten through to twelfth grade] STEM education and teacher development.
- 6 Improved undergraduate STEM education.
- 7 Increased public scientific literacy.
- 8 Increased national security.

*(America COMPETES Act 2007, §214)*<sup>4</sup>

In our discussion with the House staffer, Veysey, Frodeman, and I emphasized that a simple list of goals for broader impacts might be interpreted by proposers and reviewers as exhaustive, so that they would feel limited to proposing activities that were included on the list. Veysey indicated that it might not be possible to alter the language of the Bill to remove the list, but that the Committee Report language could make clear that the list was not meant to be taken as exhaustive.

The House Committee Report (111–478), which was published in May 2010, makes this point explicitly:

The specific list of goals in subsection (a) was included in a report to Congress by the Foundation in 2008, as requested in the 2007 America COMPETES Act. The Committee chose not to amend that list



developed by the Foundation in 2008. However, the Committee understands that this list may and perhaps should evolve over time, and does not intend to preclude the National Science Board from launching a more in-depth, comprehensive review of either the goals or implementation of the Foundation's merit review criteria.

*(Report of the Committee on Science and Technology [111-478] 2010, p. 109)*

The final text of the America COMPETES Reauthorization Act of 2010 (Public Law 111–358) contains the identical list (from H.R. 5116) in §526. By 2011, the NSB Task Force on Merit Review was faced with a decision of how to handle the fact that this list was now written into law.

Joanne Tornow, Executive Secretary of the NSB Task Force, had presented at the second CAPR workshop held in December 2010 in Brussels, titled: “EU/US workshop on peer review: Assessing ‘broader impact’ in research grant applications.” There, Tornow revealed that the Task Force aimed to complete its review of the Merit Review Process by the fall of 2011. In June 2011, the NSB released proposed revisions to the Merit Review criteria (NSB-11–42) that provided a list of nine national goals—it added ‘enhancing infrastructure’ to the list from the America COMPETES Reauthorization Act of 2010—and, for the Broader Impacts Criterion, asked, “Which national goal (or goals) is (or are) addressed in this proposal?”

This approach, of course, was contrary to the one we had recommended based on CAPR’s research. Frodeman and I published a piece in *Science Progress* on June 27 (Frodeman and Holbrook 2011a) in which we argued against this approach:

Under the proposed new criteria, proposers and reviewers are limited to the list of national needs. Easier? Perhaps. But unless the list is made representative and nonexhaustive, proposers will be restricted to addressing only those national goals that have appeared on the list. This also restricts the list to current national needs, tying our hands to respond to new and future challenges.

On July 8, Frodeman and I published a letter in *Science* (Frodeman and Holbrook 2011b, p. 158), in which we expanded on the point:

The proposed changes in the merit review criteria move too far in the direction of accountability, at the cost of scientific creativity and autonomy. The set of principles (in terms of national goals) also suffers from excessive detail at the cost of flexibility.

Finally, in September 2011, Frodeman and I published an article in *Research Evaluation* that was an extended comparison between NSF’s and the EC’s



approaches to impact (Holbrook and Frodeman 2011). There, we contrasted the EC's top-down approach to specifying expected impacts with NSF's bottom-up approach of allowing proposers to suggest the sorts of impacts their research could be expected to have. We also argued that worries about the vagueness of the criterion could be offset by thinking of it as more akin to NSF's Intellectual Merit Criterion, which is also not overly prescriptive in terms of what research proposers may perform. We sent a copy to Tornow at NSF.

On December 13, 2011, the *Nature News Blog* quotes John Bruer, co-chair of the NSB Task Force on Merit Review, as follows:

A National Science Foundation (NSF) task force has finalized its recommendations for tweaking the agency's two merit review criteria, 'intellectual merit' and 'broader impacts'. And central to that effort was a non-prescriptive, big-tent definition of broader impacts, says task force co-chair John Bruer, who presented the report on Tuesday to the National Science Board in Washington, DC.

"We don't dictate what type of activities are intellectual merit," says Bruer, president of the James McDonnell Foundation in St. Louis. "By the same token, we shouldn't be prescriptive about what constitutes broader impacts. We're not being overly prescriptive for either of them."

Since 1997, the NSF has required all grant proposers to justify their requests not just on intellectual merit, but also on this notion of broader impacts. Yet researchers have found the requirements distressingly vague. Legislation passed by Congress in 2010 confirmed the importance of broader impacts, and also tried to be more specific, listing some of the activities that would count as having societal benefit. But when the task force's May 2011 draft report dutifully repeated some of these examples, some critics worried that the NSF's criteria would end up being too specific. Bruer's team has since removed the list. "It raised problems about why some things were on the list and others not," says Bruer.

*(Hand 2011)*

Bingo! NSB's review and revisions of the criteria (NSB/MR-11-22) did, in fact, ditch the list. The Intellectual Merit and Broader Impacts criteria were more closely linked. And reviewers were asked to focus on the proposer's plan to achieve broader impacts. In short, quite a few of CAPR's suggestions had been taken to heart by the Task Force.

## Institutionalizing Field Philosophy

So, were we successful? Perhaps. But such battles are never definitively won (or lost). The list resurfaced and was included in modified form in the successor to America COMPETES, the American Innovation and Competitiveness Act



2017 (PL 114–329, §102). The policy fight continues (Holbrook 2018). But surely we can claim that CAPR had an impact on policy at the NSF level? The NSB-revised Merit Review criteria put in place by NSF in 2012 (FY 2013) are still in place, after all. Did NSB not follow CAPR's suggestions?

One problem with institutionalizing field philosophy is that the metrics for success do not really exist. Policy impact is great, if that is what you want to do. But, with the exception of grant proposals that ask for potential broader impacts, societal impacts are essentially invisible to universities in the United States.<sup>5</sup> US universities do not count your broader impacts. What counts is what is easily quantified: number of grants, grant dollars, number of publications, impact factor of the journal in which an article is published, number of citations, and so on.

So, what we have is a narrative that makes a case that CAPR had an impact on society. It is a persuasive narrative, I think, one based on painstakingly documenting specific interactions, specific recommendations, and specific policy changes that followed. But what does such a narrative count for? CSID was shut down by UNT, despite the success of CAPR, and despite winning several subsequent grants. I am now in a tenure-track position at New Jersey Institute of Technology, and what counts for tenure boils down to the number of publications (since my hiring, of course, so nothing I did before September of 2015 counts) and grants. Having a broader impact on society is nowhere to be found among my promotion and tenure criteria, though one might say there is a place for broader impacts: they are necessary to get a grant from NSF. But until we change the reward system at universities, field philosophy, insofar as it aims to have an impact on the world, rather than simply understanding it better, may be relegated to the margins. I take this view to be consistent with the idea that Socrates could never get tenure in a philosophy department today.

That Socrates could never get tenure today is an indictment of the system—a *reductio ad absurdum*—not an indictment of Socrates. How should we respond? One option would be to discipline field philosophy. Perhaps it would be to our benefit to lay out precisely what field philosophy is, outline its necessary characteristics, define its scope, and prescribe its methods. It appears that this is what Frodeman and Briggie (2016) and Brister and Frodeman (Introduction, this volume) are up to. After a couple of books, maybe we will need a journal. Field philosophy *could* become a fully-fledged sub-discipline of the discipline of philosophy. But, to me, that would betray what field philosophy is about. The point is not to adapt ourselves to the world; we seek to change it.

The question of how to institutionalize field philosophy without disciplining it too much is the question we field philosophers ought to address next. Why avoid disciplining field philosophy? To the extent that we discipline field philosophy, we de-philosophize it. Philosophy is not equivalent to the discipline of philosophy. There is no univocal philosophic method. We philosophers have no agreed upon set of principles that allow—or require—us to specify—and



follow—rules. Philosophy done well advances according to a manner, not by following a method. To say that philosophy advances according to a manner—what Kant called a “feeling of unity”—is not to suggest that anything goes. There are still rules for field philosophers. We simply have not found them yet. My hope is that reading this book will evoke that feeling of unity among us field philosophers, and that this shared experience will form the basis of a community of field philosophers committed to changing the world for the better. If enough of us commit to living it out, field philosophy will live on without us.

## Notes

- 1 Several other philosophers have also engaged in research I would classify as along the lines of Philosophy of Science Policy and have also been instrumental in moving the field forward. Paul Thompson, especially, had been engaged in policy-relevant philosophy and with policymakers and other stakeholders for years prior to 2003. Andrew Light is another good example. One might also mention bioethics, which is certainly policy relevant and engaged with policymakers, practitioners, and other stakeholders. But Frodeman and Mitcham led the charge to institutionalize the approach within philosophy as a whole, rather than within or as a specialized subfield.
- 2 The distinction between a method (*modus logicus*) and a manner (*modus aestheticus*) is laid out by Kant in §49 of his *Critique of Judgment* (1987 [1790]). According to Kant, a method follows definite principles, whereas a manner is guided by nothing other than the feeling of unity in the presentation of one’s thoughts.
- 3 Congress supported the Broader Impacts Criterion, but was concerned that proposers and reviewers were not taking full advantage of it. The list of goals introduced in the America COMPETES Act 2007 was supposed to make it easier for researchers who professed to be confused by the meaning of broader impacts.
- 4 The America COMPETES Act 2007 had asked for a report to Congress on the Broader Impacts Criterion (§7022). That report, completed in 2008, contained the following list of “goals that broader impacts are best suited to promote”:
  - Increased Economic Competitiveness
  - Increased Academic and Industry Partnerships
  - Development of a Globally Competitive Science and Engineering Workforce
  - Increased Participation of Women and Underrepresented Minorities in Science and Engineering
  - Improved K-12 Science and Mathematics Education and Teacher Development
  - Improved Undergraduate Science and Engineering Education
  - Increased Public Scientific Literacy
  - Increased National Security.

(National Science Foundation, 2008. “Report in Response to America COMPETES Act: Sec. 7022,” p. 13)

Other than the order of the goals, and slight variations in wording, the list in H.R. 5116 is identical to this one.

- 5 In the United Kingdom, things are different. The Research Excellence Framework provides additional incentives for universities to encourage researchers to pursue societal impacts (see Hicks and Holbrook 2019).



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# 9

## PHILOSOPHICAL BOUNDARY WORK FOR WILDLIFE CONSERVATION

### The Case of the Oostvaardersplassen

*Jozef Keulartz*

#### Introduction

In Europe, rewilding has gone Dutch, to paraphrase a chapter title in Andrew Balmford's book *Wild Hope* (2012) that refers to the Oostvaardersplassen (OVP). The OVP is a site that became a nature reserve of international importance, where the Dutch State Forest Service initiated a management approach of rewilding with large ungulates. This approach was rapidly adopted by agencies across Europe, but it also provoked fierce protests stretching from local people to national parliament.

From the late 1990s to the present day, the Philosophy Group at Wageningen University has played a key role in the heated debates that erupted time and again over the moral problems associated with the introduction of large grazers in nature reserves. This is the story of how the Philosophy Group came to be involved, and our evaluation of beneficial practices for the contribution of philosophers to complex, politically relevant issues.

The animals concerned are basically domesticated species that are derived from ungulates that were once wild, such as cattle, horses, and deer. They are subjected to a process of 'de-domestication' and have to learn to fend for themselves. The management policies of de-domestication, which entail minimizing supplementary feeding and veterinary assistance, have been most controversial.

The Philosophy Group developed an ethical framework and field approach to cope with these moral conflicts concerning the introduction of large herbivores in the OVP and elsewhere. This framework involves 'boundary work', that is, the constructive effort to facilitate communication, conflict management, and consensus building across the fences that separate communities with often divergent ethical convictions and moral vocabularies.



The Philosophy Group's research on the ethics concerning large grazers conducted in 1997/1998 was declared one of the two most influential and socially relevant projects within the 'Ethics and Public Policy' program of the Netherlands Organization for Scientific Research. The ethical framework was used to draw up the 'Large Grazers Guidelines' that were adopted by the Dutch Parliament in 2000. This framework and the Group's subsequent work also played a significant role in ethical considerations of the opinions that were delivered in 2006 and in 2010 by the International Commission on Management of the OVP.

Since early 2017, the continued existence of the OVP as we know it has been at risk. As a result of the decentralization of Dutch nature policy, the Province of Flevoland was charged with responsibility for the management of the OVP and for the welfare of the animals. By a large majority, the members of the Provincial Council opted for a radical reorientation: they aimed at a substantial reduction in the number of animals, and they wanted to make the OVP attractive to tourists and recreational users.

## Historical Background of the Oostvaardersplassen Nature Reserve

In Europe, rewilding has indeed gone Dutch. However, the term 'rewilding' did not become an established concept in the Netherlands until the start of Rewilding Europe in 2010. The Dutch term was 'nature development'; the adoption of rewilding marked a switch from a defensive to an offensive strategy. Rather than clinging to the protection and conservation of existing nature reserves, the overriding purpose was to create and develop 'new nature.'

The strategy of nature development that had been elaborated since the early 1980s is at the core of the ambitious *Nature Policy Plan* that was adopted in 1990 by the Dutch Parliament. In order to give nature development a chance, this plan claimed a considerable amount of space in the form of the National Ecological Network, a coherent network of internationally important nature areas.

With these innovative ideas, the Netherlands emerged as a pioneer of European nature policy. The Habitats Directive, including the plan of the European Union (EU) Natura 2000 ecological network of protected sites, was adopted in 1992, while the EU was under Dutch Presidency, and has been perceived as a 'Dutch Directive' by many officials in the Netherlands and abroad.

The Dutch flagship rewilding project par excellence is the OVP, a nature reserve with a remarkable history.<sup>1</sup> When the last of the polders that had been created in the former Zuiderzee was drained in 1968, a marshy landscape began to emerge in the lowest area. Initially earmarked for industry, this marshy area of 6,600 hectares soon evolved into a perfect habitat for bird species that had become very rare in the Netherlands or had completely disappeared from the country. By 1989 the OVP had become a nature reserve of international importance as a Birds Directive Area and as a protected wetland under the Ramsar



Convention. In 1999 the OVP received the European Diploma for Protected Areas, a prestigious international award granted since 1965 by the Committee of Ministers of the Council of Europe.

Whereas North American rewilders have emphasized the role of predation by large carnivores, Dutch and, subsequently, European rewilders have focused on naturalistic grazing by large herbivores. The first large-scale experiment with naturalistic grazing was carried out in the OVP. Here, Frans Vera and colleagues used Heck cattle that originated in the 1920s and 1930s in an attempt by the brothers Lutz and Heinz Heck to breed back domestic cattle to the aurochs that went extinct in 1627. They also made use of the konik horse, the closest relative to its wild predecessor, the tarpan, the Eurasian wild horse, the last of which died in Moscow Zoo in 1887.

In 1983 and 1984, 34 Heck cattle and 20 konik horses were introduced to the OVP. In 2012, a helicopter count revealed about 350 Heck cattle and 1,150 konik horses alongside 3,400 red deer, which were introduced in 1992. Because of these large numbers of free-roaming ungulates the German magazine *Der Spiegel* has called the OVP “the Serengeti behind the dikes.”

## The OVP Controversy

Although it is certainly the case that OVP’s management approach of rewilding with large ungulates has proved immensely exciting to conservation biology throughout Europe, it also provoked fierce protests from park visitors, farmers, veterinarians, and animal protectionists. The main issue of contention was the guiding policy principle that ‘nature should be allowed to take its course’ and, consequently, that human intervention on behalf of starving and diseased animals was considered acceptable only when mass mortality would be imminent.

According to opponents, this restrictive policy concerning supplementary feeding and veterinary assistance was a clear violation of the *Animal Health and Welfare Act* (1992), passed by the Dutch parliament, which endorses the intrinsic value of animals and stipulates the duty to provide them with proper care. This law applies only to domestic animals, kept as production or companion animals, but the opponents challenge the claim that the large ungulates in the OVP should be considered as animals living in the wild. They point out that the situation in the OVP is far from natural: animals are fenced in and hindered in their migration, and there are no natural predators to ‘take care of’ sick animals. Furthermore, the newly introduced Heck cattle and konik horses were originally drawn from farms, zoos, or small parks—in short, from quite domesticated backgrounds; they were accustomed to human assistance in bearing young and in care of their udders and hooves, and the sudden absence of this human care could easily lead to chronic stress, increasing the chances of disease, injury, or violent behavior.



The discussion erupted during the harsh winter of 1995/1996 when people insisted on supplementary feeding for the introduced horses and cattle in the OVP. The Dutch dairy farmers' union even planned the dropping of hay bales by helicopter. In addition, farmers, but also veterinarians, opposed the policy of not removing decaying carcasses but leaving them as feed for scavengers such as crows, buzzards, and foxes, because this policy would be in violation of the *Destruction Act* (1994) which stipulates that carcasses of farm animals should be incinerated in order to prevent the spread of disease. The Dutch Society for the Protection of Animals also made its voice heard. In a letter to the Minister of Agriculture, Nature Management and Fisheries, the society called the management of the OVP "extremely dubious, inconsistent and unjustifiable." Ultimately, the issue led to questions in Parliament and to discussions in the opinion pages of most Dutch newspapers.

## Philosophical Research into the Moral Problems of Large Grazers

In response to this public and political commotion, the Philosophy Group of Wageningen University was invited by the Netherlands Organization for Scientific Research to carry out research into the ethical questions raised by the use of large grazers in nature areas such as the OVP—an investigation that was requested by the Ministry of Agriculture, Nature Management and Fisheries. I carried out this research in 1997 and 1998 together with my colleagues Henk van den Belt, Bart Gremmen, Irene Klaver, and Michiel Korthals. It continued in the period 2000–2006 in collaboration with Sjaak Swart and Henny van der Windt of the Science and Society Group at the University of Groningen, in two projects that were also funded by the Netherlands Organization for Scientific Research.

In order to gain an overview of the ethical problems associated with the policy regarding large grazers in nature areas, we initially studied the management practices through a number of interviews with park rangers from three different sites, including the OVP. From conversations with the rangers, who worked with large grazers on a daily basis, we distilled a number of moral dilemmas. These were then discussed in a broadly-based workshop. The invitees included members of parliament; site managers of the OVP; members of the board of directors of the State Forest Service, who had been responsible for the management of the OVP since 1996; civil servants from the Province of Flevoland, where the OVP is located; representatives of the Council on Animal Affairs and the Council for the Rural Area, two important government advisory boards; and various nature conservation and animal welfare organizations, as well as farmers' and hunters' associations.

The discussions in this workshop clearly revealed that the debate was dominated by two diametrically-opposed positions. The majority of farmers,



veterinarians, and animal protectionists viewed the released horses and cattle as domesticated animals, for which the duty of individual care should be fully upheld. They also stressed that the conditions in Dutch nature reserves are in fact far from natural, and therefore concluded that the animals in question are permanently dependent on human care. Most park rangers, herd managers, and nature conservationists, on the other hand, preferred to treat the released horses and cattle—ethologically and ethically—as wild animals, for which a hands-off duty is appropriate. They also believed that nature in the Netherlands still has sufficient resilience locally to stand on its own feet. In short, people considered the animals either as kept and domesticated or as wild. We concluded that because of this black-and-white thinking, people exhaust themselves in unproductive boundary disputes in which both sides were claiming an exclusive ‘moral jurisdiction’ over large herbivores.

## Division in Environmental Ethics

Given this situation, we investigated whether it would be possible to revive the stalled dialogue between the two conflicting parties. With this in mind, we examined the relevant environmental ethics literature. It soon became clear, however, that this discipline was also embroiled in a fierce and protracted conflict, with animal ethicists who assigned a central place to the individual animal on one hand and eco ethicists who considered individual animals only as part of a larger whole, such as ecosystems or biotic communities, on the other.

This conflict erupted when Baird Callicott (1980) published a highly polemical article in which he attacked animal ethicists because they claimed authority over the broad field of environmental ethics and argued that showing proper respect for the welfare and the rights of individual animals would ultimately also benefit the biotic community constituted by these individuals. The eco ethicists, led by Callicott, considered this claim of the animal ethicists to be a sign of “ecological illiteracy,” because they advocate a duty of care for individual animals, regardless of whether these animals are wild or tame, rare or common, indigenous or exotic. Eco ethicists, on the other hand, manifestly do not accord equal moral value to all members of the biotic community; they consider the moral worth of individuals to be dependent on their function in the larger whole. This vision provoked the accusation of “environmental fascism” on the part of animal ethicists (Regan 1983, 362).

After these salvoes, environmental ethics seemed to be heading for a definitive parting of the ways. But eight years after his frontal attack, Callicott offered animal ethicists an olive branch. In an article published in 1988, he distinguished various communities that contain each other like concentric circles: the *human* community is located in the inner circle, the *mixed* community of humans and domesticated animals in the middle circle, and the wider *biotic* community that also includes wild animals in the outer circle. This theory of concentric circles



opened the possibility of granting both competing forms of ethics their own sphere of influence: individualistic animal ethics would mainly apply to our interactions with domestic animals and holistic eco ethics to our interactions with animals living in the wild.

This proposal was tempting, as it promised to put an end to the bitter and fruitless struggle between two parties that each claimed a monopoly on matters of environmental ethics. But even though the legitimacy of both the individualistic and holistic visions was now generally recognized, this did not lead to a ceasefire. It merely relocated the battlefield. The new bone of contention became the question of where exactly the line between domesticated and wild should be drawn. And it was precisely this underlying question which kept the two camps in the debate so strongly divided on the introduction of large grazers in nature reserves: Do these animals belong to domesticated species or can they be compared to wild species such as red deer and roe deer? In short, after a tour through the relevant literature we were actually back to square one. In order to find a satisfactory answer to this question, we once again turned to the management practices of the park rangers we had interviewed previously.

## The Pragmatist Turn

In the case of the introduction of large grazers we found that we were dealing with a new practice that overlaps with, but is very different from, two long-standing practices, namely, livestock farming on one hand and big game management on the other. The term ‘de-domestication’, already commonly used and well-established among park rangers, proved to be a suitable key with which the door to conceptual solutions could be opened. Animals subject to a process of de-domestication gradually move from a thoroughly cultural context to one that is increasingly natural. They do not simply cross a clear-cut borderline where our duty of care toward individual animals stops and is replaced by a hands-off duty. Instead, they enter a hybrid middle ground, a transitional zone in which neither individualistic animal ethicists nor holistic eco ethicists can claim an exclusive ‘moral jurisdiction’ over these large grazers.

That we were able to find this key to breaking the deadlock in the OVP debate is at least partly due to the pragmatist turn in environmental ethics and philosophy, strongly called for in the watershed collection of essays *Environmental Pragmatism* edited by Andrew Light and Eric Katz, and published in 1996, the year before the start of our research project. Because of its focus on problem solving and conflict resolution for the sake of further cooperation, pragmatism has always been interested more in the *process* of moral inquiry than in its ready-made *products*, such as moral rules and regulations. In order for the process of moral inquiry to be successful, pragmatists argue, we should abandon some long-standing philosophical principles that form obstacles to fruitful cooperation and peaceful cohabitation.



One of the main obstacles is the dualistic pattern of thought, which is deeply rooted in Western philosophy and evidenced by the existence of a host of dichotomies such as theory and practice, fact and value, body and mind, and nature and culture. These dichotomies encourage black-and-white thinking that does not allow for shades of gray or for a middle course, but brings conflicts to a head and leads debates to degenerate into unproductive boundary disputes. In order to break such an impasse and open up space for negotiation and deliberation among different and sometimes diverging perspectives, pragmatists suggest that we should replace thinking in terms of binary oppositions with the idea of broad continua, thus turning ‘either-or’ choices into ‘more-or-less’ ones.

Following this pragmatic anti-dualism, we replaced the notion of a distinct dividing line between domestication and wildness with the conception of domestication and wildness as endpoints of a broad continuum—a strategy that we called ‘gradualization.’ The deliberate inauguration of a de-domestication process among large grazers sets in motion a long-term learning process, not only for the animals, who need gradually to develop the capacity to stand on their own feet, but also for the park rangers, the policymakers, and, last but not least, the general public. In this experiment of de-domestication, individualistic animal ethicists and holistic eco ethicists are more or less condemned to each other.

We argued that, as the process of de-domestication advances, our duty of care gradually moves from specific care aimed at individual animals to what we have called ‘non-specific’ care, aimed at maintaining, restoring, or creating ecosystem processes that provide favorable habitat conditions for the animals (Keulartz and Swart 2012).

## Successful Introduction of the Ethical Framework

We introduced the ethical framework for the first time in spring 1998 in a report entitled *Good Times, Bad Times: Ethics Concerning Large Grazers* (Keulartz et al. 1998).<sup>2</sup> In the autumn of the same year, we presented the results of this study at an international symposium in the Dutch city of Doorwerth, where some 250 participants discussed what policy to pursue concerning large herbivores in nature reserves in the coming decades. This presentation was the first of a long series of presentations and guest lectures in the Netherlands and abroad. We have also made our results public in numerous articles in academic and professional journals, in book chapters in edited volumes on environmental ethics and nature conservation, and in interviews with newspapers, as well as on radio and television.

The introduction of our framework had the effect we had hoped for: by counteracting the black-and-white thinking that had frustrated productive debate on the management of the OVP, we apparently opened up space for both sides to start moving and to engage in new possibilities for communication



and cooperation. A good example is provided by Frans Vera, the most important architect of the OVP. In a *Festschrift* on the occasion of my retirement in 2012, Vera admitted that he initially was rather skeptical of philosophers who wanted to be involved in the debate about wildlife management. He considered me “to be yet another meddler who doesn’t know a thing about animals living in the wild, but who nonetheless insists on having his say on the matter.” But he soon retracted this view and recognized that the Philosophy Group’s conceptual intervention had brought about a marked turnaround in the debate. Frans Vera wrote:

I was able to break free from the juridification into which the entire discussion about animal welfare had gotten bogged down. It was no longer a question of whether the animals were domestic or wild, according to the *Animal Health and Welfare Act*. You said that there were not two static extremes, but that animals could move from one category to the other. It is precisely by presenting this trajectory of movement from one category to another that I believe that you, Jozef, have pulled the sting out of the discussion, although the discussion has certainly not yet calmed down.

Our research project was declared one of the two most influential and socially relevant projects within the ‘Ethics and Public Policy’ program of the Netherlands Organization for Scientific Research. *Good Times, Bad Times* had a profound impact on government policies regarding the management of large herbivores in the OVP and similar sites. Our ethical framework was used to draw up the Large Grazers Guidelines that were adopted by the Dutch parliament in 2000. We continued to influence these policies through, among other things, my membership of the Scientific Counsel of Large Grazers in the OVP, set up by the State Forest Service in 2002, and since 2012 through my chairmanship of the Foundation of Natural Processes, whose most prominent member is Frans Vera.

The success of our intervention in the OVP controversy encouraged us to develop a more comprehensive toolbox of pragmatic methods under the heading of ‘boundary work.’ In addition to the overcoming of dualisms by *gradualization*, this toolbox also included, among other things, the transformation of problematic situations by *reframing*, the depolarization of conflicts by searching for deeper shared values through a *common ground dialogue*, and the creation of space for shared problem solving by the formation of so-called *boundary objects* (Keulartz 2009a, 2009b). Our success in the OVP controversy also encouraged us to use this toolbox to tackle a series of societal and scientific controversies, such as the debates on climate change, invasive species, and the ethics of the zoo.

However, our strategy of gradualization did not fall onto fertile soil as far as some were concerned. Farmers, in particular, insisted on the domestic status of the cattle and horses in the OVP. This also applied to two groups that are dependent on farmers—veterinarians and hunters. Veterinarians depend for their livelihood on livestock farmers who are their main customers. Hunters also



depend on farmers, namely, for their hunting rights. They must lease these rights from farmers and other landowners who have a hunting area of at least 40 hectares. It is mainly due to these groups that the discussion on the management of the OVP would erupt, time and again.

## Recurring Public and Political Commotion

The most contentious issues were the ban on supplementary feeding in case of food shortages, in combination with the ban on proactive culling, aimed at reducing population densities to very low levels in order to guarantee a stable food supply. Only reactive culling to prevent unnecessary and prolonged suffering of moribund animals was allowed. In practice, the condition of the animals is monitored on a regular basis and when the condition has reached level 1 (on a scale from 1 to 5) the animal is shot and taken out of the system—a course of action that can be seen as a (political and social) compromise between the ‘wild’ and the ‘domestic’ status of the animals.

This policy caused a great deal of public and political commotion in the winter of 2004/2005. In that period, 14 percent of the konik horses died, as did 22 percent of the red deer and 34 percent of the Heck cattle. In an emergency debate, a majority in the Dutch Parliament demanded immediate supplementary feeding with hay or straw. It is no coincidence that it was Henk Jan Ormel who requested this debate. Ormel was a member of the Christian Democratic Party, the most popular party among farmers; he was also a veterinarian, and a member of the supervisory board of the Royal Dutch Veterinary Association. And, as we have seen, the veterinarians are among those groups that fiercely oppose the OVP policy.<sup>3</sup>

The Minister for Agriculture, Nature and Fisheries told Parliament that, according to the Large Grazers Guidelines, supplementary feeding was not an option because there was no imminent risk of excessive mortality. However, the minister honored the parliamentary request to ask a panel of international experts for advice. In June 2006, the International Committee on the Management of Large Herbivores in the Oostvaardersplassen (ICMO) published its report, “Reconciling Nature and Human Interest” (ICMO 2006). The committee advised the minister to accept periodical reductions in animal welfare as a consequence of ecological management. This kind of management should be optimized by improving the reactive culling policy and expanding the area available for the animals.

The Dutch Society for the Protection of Animals did not want to await ICMO’s report, and went to court at the end of the winter, when the animals are most exposed to hunger and cold, in order to enforce supplementary feeding. The court rejected the claim, a ruling that was upheld on appeal.<sup>4</sup> Since this trial, the Society has firmly changed its position on OVP’s policy regarding large grazers and is now fully supportive of the management of the State Forest Service.



History repeated itself in 2010, after a prolonged cold winter in which the condition of the animals was severely reduced and substantial numbers had to be culled. Once again, it was Ormel of the Christian Democratic Party who managed to obtain a parliamentary majority behind his request for immediate supplementary feeding of the animals. This time the minister gave in and ordered the State Forest Service to take action. The animals, however, left the hay largely untouched; they preferred the new grass that had started to sprout everywhere in the meantime. “There is no real run on it”, the minister had to admit.

Under pressure from Parliament, the minister put in place a second international commission (ICMO2) to evaluate the management of large herbivores in the OVP and the implementation of the recommendations given in ICMO1 in 2006. In November 2010, the commission published its report, “Natural Processes, Animal Welfare, Moral Aspects and Management of the Oostvaardersplassen.” In accordance with the Philosophy Group’s ethical framework, ICMO2 considered the status of the large herbivores in the OVP to be ‘in between’ fully wild and domesticated. The following quote from a lecture I gave at Utrecht University in 2010 was included in their report:

The notion of a clear-cut borderline between wildness and domesticity should be replaced by the idea of wildness and domesticity as endpoints of a broad continuum, a transitional zone in which it is not a question of “either-or” but of “less or more”. Our obligations of care should vary according to the direction of the transition along this domesticity–wildness continuum, from specific care aimed at individual animals to non-specific care aimed at their habitat.

*(ICMO 2010, 48)*

To improve animal welfare, the commission recommended further improving the policy of reactive culling; it called for the adoption of a new strategy of “early reactive culling,” taking not only the bodily conditions of the animals into consideration to determine the time and stage of culling but also their habitat conditions, in particular the availability of shelter and the exposure to harsh weather events such as snow or ice.

## **The End of the OVP (as We Know It)?**

Since early 2017, it has been very likely that we will soon see the end of the OVP as we know it. As a result of the decentralization of Dutch nature policy, the Province of Flevoland was charged with responsibility for the management of the OVP and the welfare of the animals. By a large majority, the members of the Provincial Council opted for a radical re-orientation. First, they wanted a substantial reduction in the number of animals, which are believed to live under



wretched and “degrading” conditions. Second, they would like to make the OVP an attractive leisure destination, a “showcase for the Netherlands,” with walking and cycling routes. The images of mass mortality among animals in severe winters and the close-cropped plains in the spring do not fit well with the desired recreational functionality of the area. This was an additional reason to significantly reduce the number of animals.

In September 2017, the Provincial Council set up a supervisory committee to examine how the number of large grazers in the OVP could be reduced and how more recreation in the nature reserve could be made possible. While the supervisory committee was busy bringing this task to a conclusion, the conflict over the OVP flared up again, this time more fiercely than ever before.

The winter of 2017/2018 was particularly harsh. In February alone, 1,062 large grazers died. That is about 20 percent of the 5,289 animals that were counted in October 2017. In response to this high mortality, several groups, which had already previously opposed OVP’s management approach, used Facebook and other social media to call for immediate action to save large grazers from starvation. On February 25, 2018, a group of activists took the law into their own hands by throwing dozens of hay bales over the fences of the OVP. There were also frequent threats made against the forest rangers present. On March 1, the province succumbed to the increasing pressure of the protesters: despite the fact that all the experts advised against it, the province ordered the State Forest Service to proceed with providing supplementary feeding, a decision that was motivated by the fear of social unrest and threats to public order and security.

However, the activists were not satisfied with this concession. They argued that the OVP policy should be radically reformed, as the problem would otherwise keep coming back year after year. They also claimed that the level of supplementary feeding was not high enough to prevent massive starvation. On March 3, a large group of activists—the group that organized the protest estimated the number at about 1,000 people—demonstrated near the OVP visitor center. From the nearby province of Drenthe, a convoy of trucks and tractors arrived with 300 hay bales of 800kg each, which were later delivered at the provincial house (seat of the Council) where a member of the Provincial Executive gratefully received them. This rally was the first of a long series which would last until the end of May, with the animals being illegally fed repeatedly, while the number and severity of threats to proponents of the current policy constantly increased.

On April 25, 2018, the supervisory committee presented its long-awaited opinion on the management of the OVP. As the defenders and advocates of the current policy had feared all along, this advice was what Party for the Animals (a Dutch political party) has called a “worst case scenario.” The committee wanted to drastically increase the swamp area in the OVP at the expense of the grazing area and to reserve parts of the grazing area for planting shrubs and trees in



order to provide the animals with more shelter. These measures amount to a reduction of the grazing area from 1,880 to 1,080 hectares.

The committee also wanted the number of large grazers to be capped at 1,500 to stop winter fatalities. This amounts to a shift from a reactive to a proactive culling strategy. For 2018, the committee recommended reducing the number of large grazers to 1,100 animals. This would require the removal of 1,160 from a total of 2,260 animals that had survived the winter. The committee suggested moving 180 horses to another area in the Netherlands or elsewhere in Europe. In the absence of alternatives, it also proposed the shooting of 980 red deer plus all the calves that would be born during 2018.

On July 11, the Provincial Council adopted the committee's advice. When this chapter was written at the end of August 2018, it was unclear whether and to what extent the new policy would actually enter into force. After all, this policy is highly questionable from a legal point of view. Both in terms of the reduction of the hectares of grassland and in the numbers of animals, it deviates, without a sound scientific substantiation, from the two plans that are supposed to guide the management of the large herbivores—namely, the Natura 2000 management plan and the management plan drawn up by State Forest Service on the advice of ICMO2. There is, therefore, no question that a number of organizations, such as the Dutch Society for the Protection of Animals, Caring Vets, and Fauna4Life, will challenge this policy in court, together with our Foundation of Natural Processes.

## The Changing Context of the OVP Controversy

Since its inception, OVP management has been opposed about once every five years by activist groups calling for supplementary feeding of starving animals and ultimately for an end to the “failed experiment.” Until now, the conflict has been resolved by court rulings and by setting up committees which have generally confined themselves to recommending improvements of the reactive culling policy. What was so different the last time that we are now witnessing the end of the OVP as we know it?

A major difference with the past is the delegation of authority over the OVP to the Province of Flevoland, which immediately embarked on a radical management reform. This created a tacit alliance between the province and the activists. The activists found a responsive ally in the province, which soon made concessions regarding supplementary feeding; in turn, the province could argue in respect of the demonstrations and rallies that there was no longer broad public support for continuing existing OVP policies.

The delegation of authority to Flevoland led to a reinforcement of the influence of the farmers, who played a leading role in opposing the OVP policy from the very beginning. Flevoland consists of two polders reclaimed from the former Zuiderzee, the Noordoostpolder and the Flevopolder, which includes



the OVP. Originally these polders were almost exclusively intended for agricultural production. Farmers make up a large part of the population and also hold more management positions in policy, politics, and the voluntary sector than other groups in the population. Flevoland is therefore also seriously affected by the current agricultural crisis.

In the Netherlands, as throughout Europe, rural depopulation and economic stagnation have shifted the balance of power to what is perceived as the 'urban elite,' which is generally committed to an environmental ethos and considers industrial agriculture and intensive livestock farming as animal-unfriendly and unsustainable anachronisms. Rural communities, for their part, experience the creation of wilderness areas as symbolic of the projects of the urban elite, which threaten rural livelihoods and lifestyles already forced onto the defensive. The growing tensions between urban and rural communities are reflected in the turn the controversy over the animals at the OVP has taken since the decentralization of Dutch nature policy.

Another important difference with the past concerns the role of social media. The discussion about the OVP slumbered under the surface for years in a number of Facebook groups, especially during harsh winters. But this time, the discussion surfaced explosively when a popular Dutch newspaper published an article about a call from activists online demanding supplementary feeding in the OVP. This news article soon circulated on the internet and triggered a cyber-cascade: within a short period of time the number of posts about the OVP on Facebook and Twitter rose from about 80 to almost 10,000 per day.

The Facebook groups largely consist of people who have dogs, cats, horses, or other companion animals, or who work in riding schools, animal clinics, animal shelters, etc. They generally believe that the wild horses and cattle in the OVP should be treated according to the same standards as their own domestic animals. Their outrage is fueled by the fact that the animals in the OVP live in an open area and are therefore visible to everyone, including when they are starving or being shot. This visibility, greatly enhanced by social media, explains why the new groups seem to focus exclusively on the suffering of animals in the OVP, and pay no attention to the serious welfare violations in the livestock industry or to the devastating impact of large-scale hunting on animal welfare in other nature reserves.

This is not the only difference with more traditional animal welfare groups. Another concerns the way in which the activists in the OVP operate strategically. While the more traditional groups try to secure a place at the negotiating table in order to contribute to finding sustainable solutions, these activists frequently resort to illegal actions that may endanger public safety and private security. This is undoubtedly related to their extensive use of social media as the primary means of discussion. By creating echo chambers in which like-minded users share and reinforce each other's opinions, social media can



breed polarization and segmentation. This has further heightened the already existing tensions between the opponents in the OVP controversy.

## Concluding Remarks

The recent transfer of authority of the OVP from the state to the province and the resulting turn in the debate on the management of the large grazers have made it clear to me and to my colleagues that we have either overlooked or paid too little attention to a number of issues.

In the first place, we have underestimated the role of power relationships between rural and urban communities and the need for bargaining in nature protection and conservation conflicts. As Habermas (1996) has pointed out, in complex societies it is not—even under ideal conditions—always possible to settle controversies by argumentative means only. Whenever proposed regulations affect the various interests in different ways without any generally accepted common interest, there simply is no alternative except bargaining. In such situations, we must strive toward achieving a balance of conflicting interests through compromise under fair bargaining conditions.

Second, we have underestimated the extent to which people have become increasingly alienated from nature. As a result of the industrialization of agriculture and ongoing urbanization, many people in the Netherlands have lost touch with the natural world. This has led to tunnel vision on animal welfare in which the standards for riding school horses and farm animals are also considered to be applicable to wildlife. There is a lack of interest in and knowledge about the life and death of animals in the wild. The question is how this knowledge gap can be filled, given that citizens tend to consider expert-based views of nature to be technocratic and elitist. As Tim Nichols (2017) in his book *The Death of Expertise* argues, we are witnessing an emerging “cult of ignorance,” which has been fostered by social media.

This brings us to our third and final point: the role that social media has played in further heightening the tensions between opponents in the OVP controversy. It is clear that where debates become so embattled that communication between opposing sides breaks down, philosophical boundary work will be difficult, if not impossible. Boundary work requires a political culture in which often widely diverging lifestyles and worldviews can compete with one another on an equal footing. Only then can there be a balanced debate in which one party, without renouncing its own claim to validity, is able to respect the other parties as allies in the common quest for genuine truths (Keulartz 2018, 207).

A general lesson I have learned from my long-standing involvement with the OVP, and particularly from the present conflict, is that the success of philosophical boundary work is highly dependent on the broader political, social, and cultural context in which nature management practices evolve. If the context changes, it might be wise for the philosopher to take a step back from the



immediate practice and temporarily retreat to his or her study in order to delve deeper into the meaning of such change, and to come up with new solutions and strategies.

## Notes

- 1 [www.staatsbosbeheer.nl/natuurgebieden/oostvaardersplassen](http://www.staatsbosbeheer.nl/natuurgebieden/oostvaardersplassen).
- 2 *Good Times, Bad Times* is a song by the English rock band Led Zeppelin, but is also the longest-running and most popular Dutch TV soap.
- 3 Rumor has it that their resistance was led by a number of fanatical hunters within the veterinary association. A piquant detail is that the current director of the Royal Dutch Hunters Association is also a veterinarian.
- 4 In 2016, the foundation Welfare of Animals in the Oostvaardersplassen also unsuccessfully took the State Forest Service to court to enforce supplementary feeding, the provision of shelter, and a reduction in the number of animals through relocation or culling.

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# 10

## VALUES-INFORMED DECISION SUPPORT

### The Place of Philosophy

*Nancy Tuana*

This chapter, as with the collection of essays in this volume in general, is designed to provide examples of how the skills of philosophers can contribute to transdisciplinary research efforts to find solutions to pressing social problems. There is no “one-size-fits-all” strategy, but learning from one another and cultivating strategies for training ourselves, our peers, and our students on how best to engage in such research is an important first step. This chapter examines the role of embedded philosophers in two National Science Foundation (NSF) funded transdisciplinary research projects that focus on climate risk management. These research projects have as one of their primary aims collaborating with policymakers and stakeholders who make decisions about adapting to the impacts of climate change. Understanding the centrality of the role of philosophers to both of these projects provides a valuable example of field philosophy. The second half of the chapter will focus on lessons learned from almost a decade of being an embedded philosopher.

In 2016, the NSF announced the theme of convergence research as one of their “10 Big Ideas for Future NSF Investments” (NSF 2016). According to the NSF (2016), convergence research “entails integrating knowledge, methods, and expertise from different disciplines and forming novel frameworks to catalyze scientific discovery and innovation” in order to offer solutions to specific and compelling societal problems. The NSF emphasizes that this “convergence paradigm” builds on transdisciplinary approaches to create multiple solutions to complex problems. However, in the supporting literature, convergence is almost always between the sciences and engineering.

Convergence is an approach to problem solving that cuts across disciplinary boundaries. It integrates knowledge, tools, and ways of thinking from life and health sciences, physical, mathematical, and computational



sciences, engineering disciplines and beyond to form a comprehensive synthetic framework for tackling scientific and societal challenges that exist at the interfaces of multiple fields.

*(National Academy of Sciences 2014, 1)*

The tag-on, “and beyond,” in the list of knowledge producers reflects a general absence of attention to the role of the humanities in convergence research.

The palette broadens when we turn from the US-based National Science Foundation to international organizations that focus on sustainability. To pick just one exemplar, consider the international research program, Future Earth, which was launched as a globally distributed consortium in 2012 at the UN Conference on Sustainable Development (Rio+20) to build knowledge about the environmental and human aspects of global change and to find solutions for sustainable development.

Transdisciplinary research is the hallmark of Future Earth’s Knowledge–Action Networks. These networks are described as aiming

to generate knowledge by pulling from many areas of both academia and society. They involve fundamental research, integration of natural and social sciences and humanities, co-designed research questions with users, co-produced outcomes, and broader engagement activities through state-of-the-art communications, dialogues and involvement at policy interfaces. The co-design process ensures that the Knowledge–Action Networks deliver the knowledge that society needs.

*(<https://futureearth.org/networks/knowledge-action-networks/>)*

Future Earth aspires to have a significant impact at the interface between science and international policy as well as catalyzing world-class research on sustainability solutions.

Unlike the NSF, Future Earth explicitly mentions the humanities, yet a search of their many projects reveals that only one philosopher is listed as engaged in this crucial research. This is a common problem. It is not that philosophers are not interested in sustainability and global change. A quick search of the *Philosophers Index* reveals almost 2,000 journal articles and over 150 books written on the topic of sustainability. However, the enormous gap between philosophical publications on topics such as sustainability or anthropogenic climate change and the participation of philosophers in nongovernmental organizations (NGOs) like Future Earth that aim to have an impact on policy signals a serious problem.

The discipline of philosophy devotes itself to such highly relevant issues as:

- How should individuals and communities live sustainably in our era of anthropogenic climate change?



- How are we to assess responsibilities for past harms to groups of people, indeed to entire populations?
- What are our duties to future generations?
- What are the best ways to understand the uncertainties and risks that emerge in this time of global change?

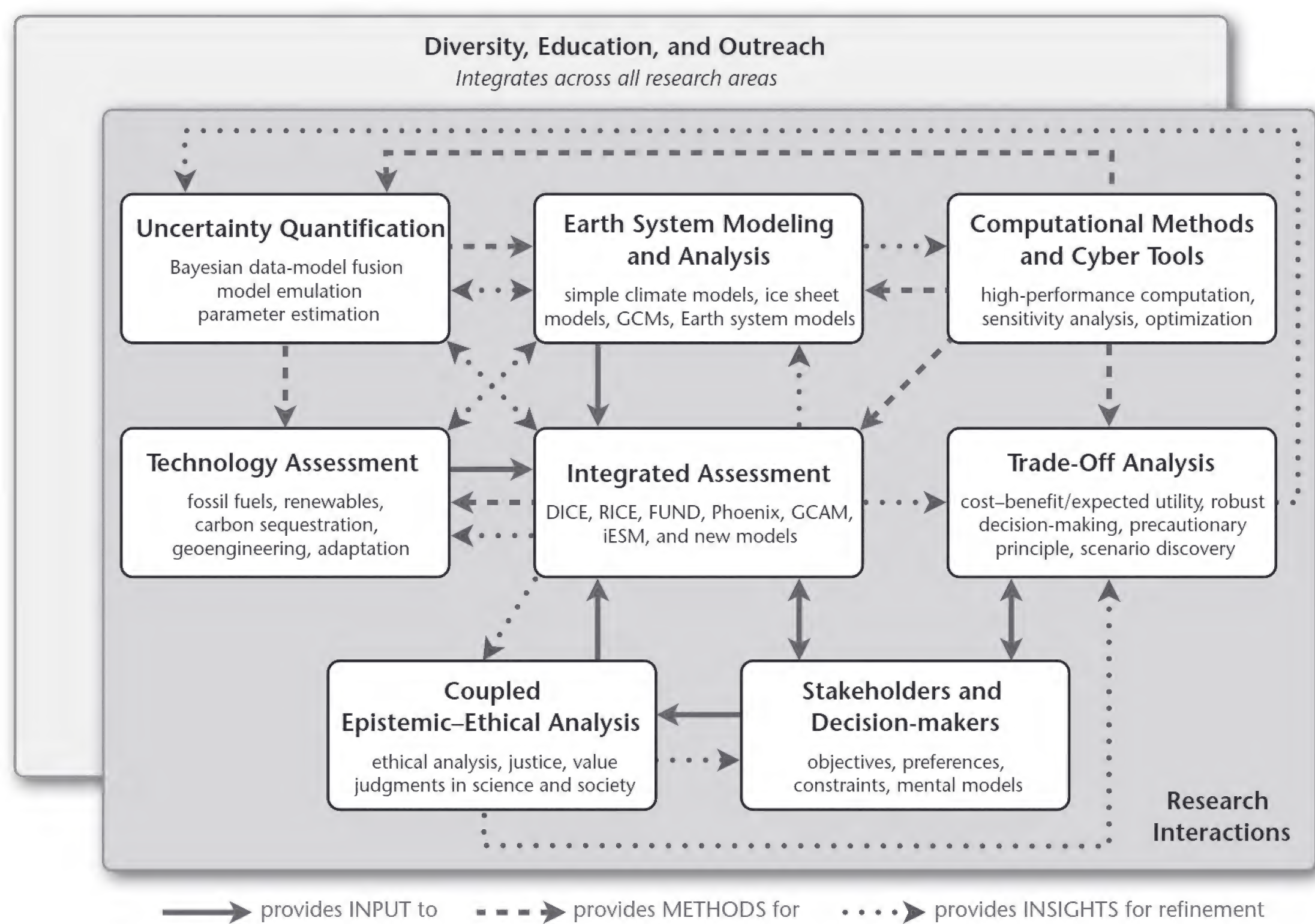
Despite the centrality of such questions to ethically and epistemically relevant policymaking, few philosophers are actively involved in transdisciplinary research designed to have an impact on pressing social issues.<sup>1</sup> As we examine the barriers to practicing philosophy in the field, to contributing to the co-production of knowledge with scientists and engineers as well as with stakeholders and policymakers, it is important to examine whether such barriers are internal to our discipline—for example, in how we train students and our norms for collaboration—or external, in how philosophical contributions to transdisciplinary research are perceived.

## Embedding Philosophers in the Practices of Science

I serve as Co-Principal Investigator (Co-PI) of the NSF-funded transdisciplinary research network for Sustainable Climate Risk Management (SCRiM, [scrimhub.org](http://scrimhub.org)). The 11.9 million-dollar grant links a transdisciplinary team of scholars at 19 universities and five research institutions across six nations to answer the question, “What are sustainable, scientifically sound, technologically feasible, economically efficient, and ethically defensible climate risk management strategies?” The question transcends the traditional boundaries between academic disciplines as well as between academia, industry, government, and NGOs. Choosing a strategy to respond to climate risk involves complex trade-offs across a large range of temporal and spatial scales (Adger et al. 2005; Solomon et al. 2010). This is a problem imbued with deep uncertainty, often resulting in modelers and decision-makers disagreeing about the appropriate problem framing, model structure, parameter values, and objectives (Keller et al. 2008; Garner et al. 2016).

One of the unique features of SCRiM is the integration of philosophical analysis throughout the work of the network by means of research collaborations between scientists and philosophers as well as between members of our team and stakeholders and policymakers. Through the deployment of coupled epistemic–ethical analysis, philosophers have worked closely with climate scientists to identify epistemic value choices within climate models and to examine the impact, both epistemic and ethical, of those choices (Tuana 2017b). As SCRiM is dedicated to decision support science, this philosophical lens also plays an important role in helping to ensure that decision-makers are provided with the knowledge they need to make responsible decisions. One way in which we represent our network can be seen in Figure 10.1.





**Figure 10.1** The Components of the Network for Sustainable Climate Risk Management

Notes

GCM: General Circulation Model—a type of climate model.

DICE: Dynamic Integrated Climate-Economy model—an integrated assessment model developed by William Nordhaus.

RICE: Regional Integrated Climate-Economy model—a variant of the DICE model.

FUND: Climate Framework for Uncertainty, Negotiation, and Distribution—an integrated assessment model of climate change.

GCAM: Global Change Assessment Model—an integrated tool for exploring the dynamics of the coupled human–Earth system and the response of this system to global changes.

iESM: Integrated Earth System Model—an earth system model with a fully integrated human systems component.

A signature of our transdisciplinary research is the inclusion of coupled epistemic–ethical analyses. Epistemic value decisions, such as simplicity and empirical accuracy, that are embedded in research models and methods often go unquestioned and unappreciated. However, these choices can have ethical import, particularly in the context of decision support. They can also be epistemically significant regarding what is and is not known. Such value choices and their complex implications are significant in multiple dimensions of the process of designing climate risk management strategies, from the models that are deployed to project future climate impacts, to the selection of particular climate risk strategies (types of adaptation practices, for example), to the incorporation of stakeholders into the decision-making process.

Stakeholders and decision-makers in turn bring their values to bear when making decisions about how best to manage climate risks. These values can



range from ethical considerations—e.g., distributive or intergenerational justice dimensions, views on rights and duties—to things that they value, such as particular places or aspects of well-being (Tschakert et al. 2017; Tuana 2017a). In SCRiM, we have developed techniques for identifying such values and examining their ethical and epistemic significance. These techniques have been developed in large part through embedding philosophers in transdisciplinary teams where philosophers function as participants in all aspects of the work of the team, from choice of model parameters to design of stakeholder engagements.

To gain a sense of the nature of our work and the synergies among the components of our network, consider our efforts working with stakeholders in New Orleans to co-produce resources for decision support regarding the design of flood-risk management strategies. Our commitment was to co-produce our work with the community of New Orleans. We began with the City of New Orleans Master Plan ([www.nola.gov/city-planning/master-plan/](http://www.nola.gov/city-planning/master-plan/)) which itself had been informed by stakeholder engagements. However, our goal was to expand and enrich the range of stakeholders through a series of interviews with a diverse group of community members who were insufficiently represented in the original Master Plan.

Philosophers, working together with social scientists, developed a way to code the Master Plan and the interviews for value dimensions, both ethical and epistemic. But we realized that we also needed to understand the values of the modelers in order to ensure that the subsequent models provided the range of knowledge needed given the values of the stakeholders. To do this work we developed a new method, which we labeled value-informed mental models (ViMM) (Bessette et al. 2017; Mayer et al. 2017). We then used insights derived from the ViMM analyses to inform the design of scientific models as well as decision support tools within the SCRiM network (e.g., Diaz and Keller 2016; Oddo et al. 2017). The insights from these models, in turn, provided the foundation for coupled epistemic–ethical analyses (Vezér et al. 2018).

The insights from the decision analyses catalyzed new research in the areas of Earth science and statistics, e.g., about the ability to detect warning signs (Ceres et al. 2017). This research led the team to refine the decision-analytical approach and to develop new tools, e.g., how to identify dynamic adaptive pathways in the face of potential threshold responses (Garner et al. 2016; Quinn et al. 2017). Throughout the process, one of the most important roles of the embedded philosophers was to ensure that the ethical and epistemic significance of the work of the team was always at the forefront of our collective considerations. This type of work, as I explain more fully in the final section of the chapter, requires deep and long-term collaborations between the scientists and philosophers involved, where philosophers are seen as key contributors to all aspects of the scientific practice. It extends as well to relations between decision-makers and stakeholders, where, indeed, the philosophers are often an intermediary between stakeholders and scientists in terms of identifying values trade-offs.



To build on the work of the team, we expanded our partnership through a second NSF grant, a coupled natural and human systems project on the topic of forest futures and sustainability in the context of a changing climate—Visualizing Forest Futures: How Biodiversity and Human Values Shape Decision Making under Climate Change (ViFF, <https://sites.google.com/a/pdx.edu/visualizing-forest-futures/>). A key dimension of this work is an enhancement of our SCRiM partnership with the Menominee Nation. The project included a renewed commitment to co-produce knowledge relevant to the Menominee people's forest-based economy and ways of life. To carry out this project we needed to incorporate both traditional knowledge practices and western knowledge practices. Once again, the team recognized the importance of being alert to embedded values and transparency in relation to those values. ViFF has devoted substantial resources to embedding philosophers in its team to do this important work.

Our partnership with the Menominee Nation and the Menominee Tribal Industries emerges out of the recognition that while the impact of a changing climate on the Menominee forest will likely be economic, the impact is not limited to economic factors. It will also likely erode ways of knowing and relating to the forest. Loss of economic revenues from forestry management could have reverberating impacts throughout the Menominee community as, for example, fewer members of the tribe would be able to continue to live on or near tribal land, and the ability of the community to provide services such as their wellness and job training programs would be challenged. Mixed with these challenges is the risk of loss of cultural heritage and indigenous knowledge and lifeways. These can result in non-economic losses such as individuals experiencing depression or anxiety, and the erosion of a sense of community and shared culture.

A changing climate is negatively impacting Menominee Tribal Industries' commitment to the sustainable management of their forest through the practice of sustained-yield management ([www.mtewood.com](http://www.mtewood.com)). A central aim of ViFF is to collaborate with tribal members to provide resources for climate risk management. In order to augment the processes involved in decision-making regarding the Menominee Nation's forestry adaptation practices, the study is designed to bring together such diverse factors as knowledge of the forest and forest management, projections of forest change due to climate change, cultural values and customary practices, and visualizing strategies designed to augment decision support regarding the forests of the Menominee Nation. Our project involves a series of questions, including: (1) What are the values and customary practices that influence preferences in sustainable forest structure and function?; (2) Do these preferences differ among members of the community?; and (3) What are the best ways to engage projections of future climate impacts on forest species composition and productivity for responsible decision support in recognition of values trade-offs? While our work on this project is still in its early stages, philosophical contributions concerning coupled epistemic-ethical analyses and values-informed mental models are a key feature of the project.



## How Embedded Philosophy Differs from Public Philosophy

The formal call for public philosophy in the US was inspired in large part by the American Philosophical Association (APA) which, after a series of meetings, launched the Committee on Public Philosophy in 2007. At that time and arguably throughout its existence, there has been no standard definition of the nature of public philosophy. Public philosophy is described by some as philosophical writing that is aimed at non-philosophers—often published in non-philosophy venues such as blogs or newspapers. Others list bringing traditional philosophies to non-traditional settings such as bookstores or radio programs. The APA includes philosophical writing that engages contemporary issues in the category of public philosophy. Often on the list is teaching philosophy to traditionally underserved populations such as prisoners or children. The Committee on Public Philosophy also lists promoting to the public the value of philosophy for individuals and societies as a form of public philosophy ([www.apaonline.org/group/public](http://www.apaonline.org/group/public)).

The aspect of public philosophy most aligned with what I call embedded philosophy or what Frodeman and Briggie (2016) call field philosophy is philosophical effort to “bring the discipline into dialogue with other humanities, the arts, natural sciences, social sciences, and interested people outside of academia” ([www.apaonline.org/page/publicphilosophy](http://www.apaonline.org/page/publicphilosophy)). The difference, of course, turns on the meaning of the phrase “bring the discipline into dialogue with.” There are many ways of being in dialogue with others. As the majority of my work has been in dialogue with scientists and engineers, let me speak from my experiences in these domains.

As founding director of the Penn State Rock Ethics Institute (<http://rock-ethics.psu.edu>), my two central goals for the institute were: (1) to integrate ethics across the Penn State curriculum; and (2) to catalyze innovative transdisciplinary ethics research. To accomplish the first goal, we instituted a series of what we called Teach the Teachers Seminars. We offered these seminars to faculty in the College of Engineering as well as to faculty in the Eberly College of Science. The goal was to provide science and engineering faculty with the knowledge and resources they needed to incorporate ethics education within their courses. The success of these summer-intensive seminars resulted in well over 3,000 students per year being taught “ethics-infused” courses in science and engineering. While not discounting the importance of this work and indeed recognizing it as bringing the discipline of philosophy into dialogue with the sciences and engineering, I do not see this work as field philosophy or embedded philosophy.

The unique nature of the type of embedded philosophy I have engaged in resulted from the efforts we made in the Institute to catalyze innovative transdisciplinary ethics research. Being trained as a philosopher of science disposed me not only to attend to the importance of epistemic as well as ethical issues but



also to understand how they are often interfused, that is, how they are mutually informed or coupled. Becoming embedded in a team of climate scientists led to transdisciplinary approaches to climate risk management in which attention to such coupled epistemic–ethical aspects of science, particularly decision support science, transformed both the questions asked by climate scientists and the design of the models. It also informed our interactions with stakeholders and decision-makers.

## Practicing What We Preach

The growing acceptance of the centrality of values in the context of climate change decision-making is well reflected in the recent US climate change assessment, *Climate Change Impacts in the United States*, which made clear that decision-making had to incorporate both “uncertain scientific information of varying confidence levels, and the values of stakeholders and decision-makers” (Melillo et al. 2014, 621).

Attention to the role of both epistemic and non-epistemic values in the practice of science and engineering has become a subject of growing attention in philosophy. The work of philosophers such as Helen Longino (1990), Heather Douglas (2009), and Kevin Elliott (2017) have contributed to this growing field. However, how to translate such findings “into the field” remains a pressing question. The remainder of the chapter will provide a series of lessons learned from my experiences as an embedded philosopher.

### 1 How to Start?

There is no simple answer to this question, but it is one that I am often asked. I began by identifying an area of research that: (a) interested me; (b) where the philosophical issues were complex, multiple, and crucial; and (c) where there was a large team of potential researchers with whom to partner. I chose climate science for a variety of reasons. I was already doing work on the topic of gender and climate change. In 2004, in part because of this work, I began to participate in side-events at the United Nations Framework Convention on Climate Change. I quickly identified a series of issues of philosophical relevance, yet noted that few philosophers were involved in the Conference of the Parties or in the work of the Intergovernmental Panel on Climate Change. Pennsylvania State University (Penn State) had significant strength in the field of climate change science; indeed, it is arguably one of the top US universities in terms of the range and quality of scientific research on climate change. This convergence of interest and opportunity led me to devote a substantial amount of time to building partnerships with climate change scientists at Penn State.



## 2 Who to Work with?

I began working with scientists and engineers through a series of grants and grant applications. Work on climate science is often multi-disciplinary and the NSF has a long history of supporting interdisciplinary research, particularly in the domain of coupled natural and human systems.<sup>2</sup> That meant that many climate scientists were already working on multi- or inter-disciplinary teams. Granted, none of them had any experience working with someone from the humanities. The nature of climate science, with its complex uncertainties and high level of risks, however, resulted in most climate scientists being quite clear that their work had ethical import. That clarity opened a door of opportunity for me that I was able to transform into a much broader engagement with climate science and the epistemic and ethical issues that are embedded in it.

Having met a number of climate scientists through my participation on an application for a Carbon Cycle Integrated Graduate Education and Research Training NSF grant, I realized that an effective way to cultivate partnerships would be through grants. This insight led me to partner with two different teams of scientists by writing and getting funding through two NSF Ethics Education in Science and Engineering (EERE) grants. Grants are not only a required component of the portfolio of scientists and engineers, but the grant also provides salary support for their collaboration. These two grants provided me with over six years of experience in direct collaboration with a group of scientists. From that experience, I identified scientists who were interested in collaborative partnerships, and through those partnerships we identified research approaches that led to the development of the SCRiM team and to the embedded practice of coupled epistemic–ethical analysis.

I've come away with several lessons about creating effective partnerships. First, you have to really enjoy working with your collaborators. It takes a lot of time for philosophers to nurture and develop effective collaborations with scientists and engineers. In work style, and even in disposition, you need to have a good fit, that is, someone with whom you enjoy working and who enjoys working with you. Second, they need to be open to learning from and with you. As much time as I put into developing a good understanding of climate change science, my primary collaborator, Klaus Keller, put into reading philosophy articles that I sent his way in order for us to be able to (a) craft our transdisciplinary approach, (b) know who else to put on the team to enhance the work, and (c) train postdoctoral researchers and graduate students so that they could contribute to the transdisciplinary efforts. Third, you have to have a good fit in terms of working style and leadership strategies.

One of the challenges I faced in creating partnerships was the particular nature of the philosophy department at Penn State. For all its strengths, it is a continental and history of philosophy focused department and, as a consequence, we have few graduate students with an interest in learning about or



contributing to the transdisciplinary research of SCRiM or of ViFF. I was able to surmount this obstacle by hiring postdoctoral researchers trained in philosophy and with skill sets that disposed them to working within the collaborative environments of SCRiM and ViFF. The plus side of this was extending the range of philosophers with whom I worked. The challenge, however, was having another set of philosophers, in addition to the graduate students whom I advise, who needed mentoring, training, and, eventually, job placement. At Penn State, faculty are not given credit for dissertation advisees, either in the form of course release time or for our merit reviews. The same was the case for my postdocs, resulting in a significant increase in my workload.<sup>3</sup>

### 3 How to Work?

Embedded philosophy is slow philosophy. It takes a long time to learn how to collaborate and, in particular, to learn the language and research methods of the team members and for them to learn yours to a sufficient extent to be able to start to work together. Embedded philosophy means going to lab meetings and learning about a range of research projects and different types of computer modeling long before (and after) one has a sense of which project or model is most salient for the embedded work. There are often time delays for publications as it takes time for philosophers to become embedded and for their collaborative role to begin to have an impact on the shaping of the transdisciplinary approaches of the team. This is one of the reasons we try to ensure that postdoctoral appointments are multi-year, as it often takes a full year just to begin to see the research results of a project. But the learning curve is steep, and philosophers can discover that they don't have the aptitude needed for collaborative work; so we are unable to guarantee more than a first year for a new postdoc. That means a postdoc will have to be doing the work while being on the job market, just in case. A postdoc appointment with a NSF grant, however, unlike many of the currently labeled postdocs in philosophy, is 100 percent research. This means that along with learning skills regarding transdisciplinary collaboration, expanding their understanding of climate science, and crafting new research projects, postdocs working with me have time to finish publications from their dissertations or previous research positions.

The learning process is ongoing. With each new collaboration, new approaches can result in another level of challenge. For example, when we built on the successes of SCRiM by partnering with the ViFF team, that team brought to bear techniques for visualizing forests under different types of climate futures. Using the tools of the LANDIS-II computer model of forest landscape disturbance and succession (Scheller et al. 2007) and immersive virtual reality imaging have resulted in new challenges and steep learning curves. Translating the findings of coupled epistemic–ethical analyses into two very different visualizing strategies has required another round of steep learning.



Learning to write with others is not an easy process, particularly for philosophers who are not trained to do so. Even issues of author order were, at times, complicated. How much of a contribution is required to be included in an author line? How is the author order determined? How is first authorship decided upon? We found that this issue required exceptionally clear communication. Once a member of our team has identified a project that they are interested in and that has publication potential, we require them to write up a one- to two-page description of the paper which outlines the research team, the author order, the publication venue, and an outline of the ideas. These proposals are negotiated with the entire publication team, making sure each proposed author agrees to the work proposed, commits to their contribution to the research, and approves of the author order. These proposals are often modified and renegotiated over time as the work shifts or we realize that the work will require an additional contributor, etc. But such proposals, agreed upon by all in their first instantiation and in all subsequent modifications, have ensured clear and effective working collaborations throughout our network.

Not all efforts work out. There are many first drafts of papers, efforts to design collaborations, dialogues, and plans that don't work out. This can be particularly challenging to our postdoctoral researchers who need appropriate publications should they decide to apply for academic jobs upon completion of their postdoctoral appointment, as most of the philosophers who have had postdocs have done.

We also have had to negotiate the very different publication demands for our postdoctoral scholars. Our scientists need to publish in quite different journals than our philosophers require to get recognition for their publications and build their CV with the job market in mind. We addressed this issue by putting together teams designed to work on a series of papers related to a topic that had scientific import as well being a topic that would benefit from the insights of philosophical analysis. One successful example of this strategy involved the one philosophy graduate student, Toby Svoboda, from my department who was interested in climate ethics and whom I was able to fund through the grant and embed in the team.

Klaus Keller and I had completed a study with Marlos Goes, a geoscientist and, at that time, a postdoctoral researcher with SCRiM, on the topic of aerosol geoengineering that we published in *Climatic Change* (Goes et al. 2011). The research deployed a simple integrated assessment model of climate change to analyze potential economic impacts of aerosol geoengineering strategies over a wide range of uncertain parameters such as climate sensitivity, economic damages due to climate change, and the negative impacts associated with adding aerosols to the stratosphere. While the focus of the paper was on the findings of the climate risk modeling, the paper included a section on the ethical implications of the findings. We argued that the findings provided an empirical base for examining issues of intergenerational justice raised by aerosol geoengineering.



While this paper provided initial “ethics-spotting” relevant to the analysis, it did not develop the full range of ethical issues regarding aerosol geoengineering. For that purpose, we invited Toby Svoboda to work with the team and, in particular, to work closely with Marlos Goes to understand the full implications of the modeling. The result was Svoboda’s first publication (Svoboda et al. 2011). This collaboration initiated a series of papers with the team just prior to and after Svoboda completed his PhD in 2012, including “Ethical and technical challenges in compensating for harm due to solar radiation management geoengineering” (Svoboda and Irvine 2014) and “Towards integrated ethical and scientific analysis of geoengineering: A research agenda” (Tuana et al. 2012). The experience with SCRiM was a key influence in Svoboda’s continuing research on the topic of the ethics of geoengineering and in publishing a series of articles and eventually a book, *The Ethics of Climate Engineering: Solar Radiation Management and Non-Ideal Justice* (Svoboda 2017).

## 4 Finding Balance

The work that I do as an embedded philosopher is an important part of my research interests, but my research interests range far wider. I am committed to working to bring an intersectional perspective to bear in the field of climate justice (e.g., Tuana, 2007, 2019). While this work has certainly had an impact on the work that I do in SCRiM and ViFF, my range of concerns and interests extend beyond those of the grants. In addition to work related to anthropogenic climate change, I publish in a wide range of topics in the field of liberatory philosophy. Having a wide-ranging portfolio of publications requires various types of juggling. It requires, for example, the ability to write for a number of different audiences and to shift rhetorical styles. It often also demands careful balancing of time and attention. While working on a book on liberatory philosophy (Tuana and Scott forthcoming), I still had to create space and time for the ongoing publications and research collaborations emerging from the grants.

Being part of a research collaboration, particularly at the level of a Co-PI, is a long-term commitment which lasts not only as long as the funding for the grant, but, in many cases, far longer. The SCRiM collaboration is now in the final year of a no-cost extension. Given the amount of time we’ve put into our model of climate risk decision support analysis and given the success of our work, the team has submitted grants to support the application of our tools and skills to the issue of riverine flooding in Pennsylvania. We see this as a way to refine our tools and to do so closer to home than New Orleans or the Menominee Nation. But as coupled epistemic–ethical analyses and values-informed mental models are key signatures of the collaboration, the expectation is that I will continue to work on future projects. Doing so has many positive aspects, but it also means that there are parts of my research portfolio that I will not have as much time to develop. In other words, there are trade-offs.



And, in the midst of these various efforts to find my individual research balance, I have discovered over the years that as an embedded philosopher I am always having to remind the collaborative team to maintain our collective balance so that the scientific gaze does not overlook the philosophic contributions. While the PIs have become skilled in articulating the importance of the work of embedded philosophy, newer colleagues often have to be reminded of the value of this work. And even a seasoned PI can, in the enthusiasm of a new finding and the need for a postdoc or graduate student to publish, forget to bring a coupled epistemic–ethical lens to bear on the work. One of my roles as an embedded philosopher, then, is to regularly ensure the balance of the work of the team.

## 5 Paying Attention to Difference

The development of one of our signature tools, values-informed mental models and the ethics coding we created to deploy it, emerged out of attention to differences. One of the projects of the SCRiM grant involved working with partners from RAND<sup>4</sup> to improve their efforts to provide resources to the New Orleans Master Plan process through the practice of robust decision-making. Robust decision-making is an analytic framework that works with decision-makers to identify potential robust strategies, characterize the vulnerabilities of such strategies, and evaluate trade-offs among them ([www.rand.org/topics/robust-decision-making.html](http://www.rand.org/topics/robust-decision-making.html)). The process is iterative, as stakeholder values are a key component of how the trade-offs are characterized. However, *who* is included in the stakeholder group will determine whose values count and whose values might be ignored. We discovered that the range of stakeholders consulted was too narrow to represent the wide range of values perspectives that make up a city like New Orleans. There was the additional issue of future generations whose values preferences might differ from those of current generations. Taking difference into account led us to structure our research in significantly different ways.

But differences are also factors in the ways that we interact with communities. Working with the Menominee Nation, and particularly our efforts to enhance our engagement through ViFF, has transformed the way we think about research partnerships. Honoring indigenous research methods has required a steep learning curve for our team. The time frame of an NSF grant and the time frame of indigenous research methods are often not aligned. The team included a Co-PI from the Menominee Nation, and we developed our project based on earlier interactions through our SCRiM collaborations, but we still did not fully appreciate what was required for our methods to be decolonizing (Smith 2012). Such research, Linda Tuhiwai Smith (2012, 198) explains, is “committed to producing research knowledge that documents social injustice, that recovers subjugated knowledges, that helps create spaces for the voices of



the silenced to be expressed and ‘listened to,’ and that challenges racism, colonialism and oppression.”

Respecting both the sovereignty and self-determination of the Menominee and fully committing to the value of reciprocity required a level of community participation beyond what we had considered when we wrote the grant. Critical indigenous research methodology includes: (a) tribally-identified research problems; (b) trust established through a positive relationship between tribal members and the ViFF team; (c) tribal oversight for all aspects of the project; and (d) research framed by indigenous theoretical models (Wilson 2008; Kovach 2012; Smith 2012). The pressure of meeting NSF deadlines and the requirements of peer review made each of these components of critical indigenous research difficult to honor. While we have worked over the course of the grant to adjust our plans and our processes, the pressure to publish for the sake of our junior scholars, as well as in light of the expectations of the NSF, is often in direct conflict with the efforts needed to fully engage in indigenous research methods.

## Conclusion

Doing philosophy in the field through embedding philosophy in the practices of science is not without challenges. But meeting these challenges has provided me with a more robust appreciation of the importance of philosophy and a renewed commitment to its value. In my opinion, what is most needed at this time are resources for training philosophers in the skills of embedded philosophy. While summer institutes, such as our week-long SCRiM Summer School ([www.scrimhub.org/opportunities/summer-school/](http://www.scrimhub.org/opportunities/summer-school/)), are valuable ways to develop basic knowledge of various methods and frameworks, nothing takes the place of actual experiences in the field mentored by those who have been developing the wide-ranging knowledges and skills needed for embedding philosophy into the practices of science. The aim of my work in this chapter is a call to those of us who do embedded philosophy to meet this challenge and to make a difference.

## Acknowledgments

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## Notes

- 1 While the numbers of philosophers so involved remain woefully small, there are efforts to catalyze a difference in our practices. The organization Socially Relevant Philosophy of/in Science and Engineering (SRPoiSE, <http://srpoise.org/>) has as its mission “to improve the capacity of philosophers of all specializations to collaborate and engage with scientists, engineers, policy-makers, and a wide range of publics to foster epistemically and ethically responsible scientific and technological research.”
- 2 See, e.g., [www.nsf.gov/od/oia/additional\\_resources/interdisciplinary\\_research/](http://www.nsf.gov/od/oia/additional_resources/interdisciplinary_research/) and [www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=13681](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13681).
- 3 I have worked with postdocs every year since my first grant in 2006. There were times when I was supervising four postdocs, but I most typically supervise one.
- 4 RAND is a non-profit, non-partisan research organization that aims to improve policy and decision-making through research and analysis ([www.rand.org](http://www.rand.org)).

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## PART III

# Fieldwork in the Academy





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# 11

## UNIVERSITY LEADERSHIP AS PHILOSOPHICAL FIELDWORK

*Daniel Little*

During the course of 18 years as chancellor of the University of Michigan-Dearborn, a public university of 9,300 students in Detroit, I led the university community toward a shared conception of its mission and purpose. This work involved creating a widely shared appreciation for the practical values of community engagement and multicultural inclusion among campus stakeholders, and the value of working to develop strong and productive partnerships with community partners. Philosophy is relevant to this process because of its commitment to probing assumptions, being open to varying points of view, and attempting to arrive at a shared understanding of practical moral and political values. At the same time, philosophy by itself is insufficient to ensure success in community leadership and inclusive change-making; other skills at collaboration and the building of partnerships are essential for success.

### Introduction

Philosophy is often thought to be ethereal, timeless, and impractical. According to the popular depiction, it has little to do with planning, coordinating, and acting in the world. It cultivates wisdom for the ages, not practical insight for the moment. It is difficult to think of a professional philosopher who has served as a state governor, the general of an army, or the leader of a major social movement. And yet the problems and skills that are the bread and butter of philosophy are often very practical indeed. What goals should we strive for? What is the nature of the human good? What principles should be established in the name of justice? How can we best communicate with people who do not antecedently agree with us? How should we trade off various good things in the course of ordinary life, given that life does not usually permit the achievement



of all our goals? Philosophers are trained to think clearly and dispassionately about important issues, and to pay attention to the nuances of the goods we pursue.

I have been the chancellor of a mid-sized public university in metropolitan Detroit for the past 18 years. Philosophy has helped me to succeed in that role in a number of specific ways. The impact philosophy has had for me is not theoretical or doctrinal, not the principles of utilitarianism, Kantianism, or Aristotelianism, but rather collateral to the skills of interpersonal communication across disagreement and differences of values and perspectives that immersion in philosophical discourse can help to promote. As a philosopher I have learned to think carefully about values and ethical principles. I have learned to respect others for the insights they bring from their own perspectives and life experiences. And I have gained some skill in helping to build consensus and commitment around a value scheme and a plan which supports those values that turn out to be broadly embraced.

The philosophical currents that have been most influential for me as an academic leader are those that derive from a rich understanding of the moral situation of the person and the demands of justice. Particularly important have been the values of human equality, opportunity, and dignity that can contribute to the framing of more concrete plans for institutional change. If I needed to identify a pair of contemporary thinkers whose ideas have served as an inspiration in my work as chancellor, it would be Amartya Sen (an economist with powerful philosophical instincts) and Martha Nussbaum. Historically, I find greater resonance with Aristotle rather than Plato, and with Rousseau rather than Kant. My book on the ethics of economic development (Little 2003) owed much to the conceptions of human wellbeing and the conditions of social cooperation that are best expressed by Sen and Nussbaum.

The enterprise of “field philosophy,” the topic of this volume, is a particularly appealing one, and I look at the part of my career devoted to university leadership as an exercise in field philosophy. Field philosophy proceeds from the point of view that both philosophy and the world of practical problems can be enhanced by a serious, prolonged engagement between the two spheres. More exactly, it is likely that the sharp distinction between academic philosophy and practical policy deliberations will turn out to be illusory. When a philosopher considers the familiar “trolley” problem as a challenge in moral philosophy, he or she is led to some of the same issues and deliberations that robotics engineers are now confronting in the design of autonomous vehicles. Both philosopher and engineer find that they have overlapping concerns, and each can contribute to a good practical solution.

The issues that university leaders, faculty, staff, and students must confront are almost always infused with problems that philosophers have spent great efforts attempting to understand—the nature of fairness, the challenge of balancing competing goals and priorities, and the debilitating reality of discrimination and hatred



in a democracy. The responsibilities of university leaders and the complexities of a modern university are a very good test case for field philosophy: Can philosophers bring something particularly valuable to the challenge of leading a university in a complex social environment? My own view is that they can.

This chapter will highlight several aspects of my work as chancellor that have benefitted from my background in philosophy: helping a university community probe its values and vision for the work it chooses to do together; helping a university community give expression to the values of inclusion and mutual respect; and helping to build collaborative relationships with other organizations and leaders in our urban region, in the hope of contributing to social progress as a full and trusted partner.

## My Work in Philosophy

I begin unavoidably with a brief description of my own relationship to philosophy. Since my graduate studies at Harvard in the early 1970s I have been fascinated by the relationship between philosophy and the social sciences. The title I chose for my academic blog in 2007, *Understanding Society*, captured that fascination well. Eventually I became a philosopher of the social sciences and, well before receiving my Ph.D., I understood that good work in the philosophy of social science demands deep and respectful engagement with the theories and reasoning of good social scientists. My goal has always been to identify interesting theoretical or methodological issues in the social sciences for special study, and to do my philosophical work in a way that interacts usefully with debates in relevant areas of the social sciences. A good example of this approach is my book on the ethics of economic development, *The Paradox of Wealth and Poverty* (Little 2003), which was the result of extensive interactions with development economists and development policy-makers to try to sort out the way that development economics thinks about poverty alleviation, and how it *should* think about poverty alleviation.

What is common in my work in philosophy is the idea of taking seriously the methods, theories, and research programs of working social scientists, and trying to identify topics where a philosopher can make a valuable contribution to the conduct of scientific research. Further, in each instance the most fruitful engagements came from direct person-to-person interaction, rather than simply engaging with the scholarly writings of other researchers. Each of these interactions helped me see specific problems of social science research in a new light, and helped me to formulate some hybrid philosophy and social science ideas that I would never have come to through isolated philosophical reflection.

I mention these research areas to illustrate a particular approach to philosophy. Other philosophers of my generation have had much greater impact within the discipline of philosophy. My writings often have the characteristic of being on the periphery, partly in philosophy and partly in another academic



sphere—Asian studies, technology studies, simulation and complexity studies, development studies, and the like. I prefer to develop topics for my own research and writing in a way that derives from engagement with non-philosophers, in the idea that the worth of philosophy is best cultivated through such efforts. This is not to disparage the value of “pure philosophy.” It is simply to affirm the notion that philosophical ideas and modes of thought have a positive value when brought into conversation with practitioners of other disciplines and efforts, and this is where I have always felt I wanted to contribute.

Since becoming engaged with the concrete issues of racial equality raised by the history and current realities of the city of Detroit, I have struggled with an interesting fact. The most impactful contribution to the theory of justice in American philosophy is John Rawls’s work and, in particular, his book, *A Theory of Justice* (Rawls 1971). I studied this book carefully in 1971, and served as Rawls’ teaching assistant, but in 1971 I never noticed what is highly conspicuous nearly 50 years later: the absence of any discussion of race. It is surprising to realize that this issue is not raised once in the book’s 600-plus pages. I know that Rawls cared about racial equality. But given the purely philosophical orientation he brought to his philosophical theory of justice, the question of race disappeared. If philosophy at Princeton in the 1950s and 1960s had been more engaged in the concrete realities of New Jersey, then it is more likely that racial inequality would have appeared in *A Theory of Justice*.

I cannot say that I had the aspiration to become an administrator or academic leader in the first 20 years of my career. I was very satisfied with the challenges and joys of the intellectual life of an active faculty member and philosopher, and had little concrete notion of what deans, provosts, or presidents of universities contributed. It is only once I began doing this kind of work—first as a department chair, then as an associate dean of faculty, and later as a provost and chancellor—that I came to see the opportunities for engaging work and positive contribution that dedicated individuals in those positions of administrative leadership could create. I also realized that there were areas of skill I lacked if I were to be successful in doing that kind of work. Becoming a senior leader allowed me to see my work and engagement in a different way, and it led me to develop a new set of skills of problem-solving, collaboration, communication, and leadership. It was a source of meaningful growth in moral and social capacity for me. This is a good illustration of the philosophy of *Bildung*—the idea that human beings realize their talents and capacities only through life experience. When one lacks a certain kind of experience altogether—whether working with tools and wood like a carpenter or with groups of faculty and collaborative projects like a department chair—inevitably there are aspects of one’s potential that are never cultivated or materialized. Becoming an academic administrator and leader had exactly this benefit for me. Philosophy did not lead me to administrative work, but it allowed me to thrive and develop through the experiences and challenges I encountered by taking the plunge.



## Formation of a Collective Sense of Mission and Purpose

Let me turn now to the question of how philosophy played a role in my leadership of a metropolitan university. One of the responsibilities of a university leader is to help establish and carry out a shared sense of mission and purpose for the university community of faculty, staff, and students. Leaders have a responsibility to help set the strategic direction for the university community. This requires working to establish consensus among stakeholders about the mission of the organization. A university depends on intrinsic motivation on the part of faculty and staff; so it is critical that there is a broad sense of engagement and consensus about the values and purposes that the university is committed to. Leadership is not a solo activity, a “philosopher-king” *tour-de-force* performance designing and implementing a strategy that others are tasked to carry out. Rather, it is more akin to a guided Socratic approach, in which the leader helps a group to formulate its own best thinking about the issue at hand and move toward a shared consensus about how to proceed. Leaders are “midwives” of plans rather than “philosopher-kings” who dictate the future.

These reflections indicate that a key responsibility of a leader is to help to work toward a shared conception of the values and mission of the organization. One of the distinctive characteristics of social life is that a group’s values and commitments are not wholly fixed. Instead, it is possible to arrive at new normative commitments through deliberation and discussion. This is the fundamental insight of the theory of deliberative democracy (Gutmann 2004), and it has been illustrated very amply through the past 18 years of direction-setting we have experienced on our campus. In a very real sense, a community can become better through conversation and debate. A university is a flexible set of values, practices, and people, and the division of efforts and resources needs to follow from a collective sense of purpose and direction throughout the community.

Experience of philosophy as a discipline provides valuable resources for leaders who want to foster engagement and collaboration in the individuals around them. Kantian moral philosophy brings to the fore some genuine moral insights about human dignity, equality, and worth that provide concrete assistance when it comes to attempting to build an effective team of leaders. “Treat others always as ends, not merely as means” is as good a principle of organizational behavior as it is in other aspects of life (Kant 1998). The qualities of honesty, trust, transparency, and respect for the fundamental worth of other human beings that play key roles in Kantian ethics also play a very constructive role in daily life within organizations such as universities.

A central task for a leader is to assist the organization and its stakeholders to arrive at a shared understanding of the mission and goals of the organization. The formulation of the goals and priorities of a university is a fundamentally important task that requires deep reflection and sustained collaborative discussion among the full range of stakeholders—faculty, students, staff, alumni, and



community partners. Formulating a conception of guiding priorities and goals for a university is a complex task. It is necessary to consider the relationship between the current strengths and assets of the university and the feasibility of attaining a given priority in a reasonable period of time. It is necessary to consider the trade-offs that would be necessary in adopting priority X over priority Y. More fundamentally, it is necessary to consider whether achieving a given set of priorities will help the university become the kind of educational environment that it most values—and this is a question of identity as much as pragmatic assessment of costs and benefits. Formulating priorities needs to be done in a way that incorporates the value commitments of the participants within the university and elicits their best and highest efforts over an extended period of time. The success of a university in achieving its goals depends upon the establishment of long-standing relationships of trust among faculty, staff, students, and administrators. And this requires many hours of serious and respectful discussion.

Further, there is often residual disagreement about values, direction, and priorities. Any group of people with commitments to the importance of their work will care about the ways in which the decision-making of the institution affects their ability to carry out their personal and professional goals. If faculty and staff are confident that their concerns have been seriously considered through appropriate processes, they are more likely to feel satisfied with the direction chosen even if it is not their own first choice. This is akin to the problem of democratic legitimacy in a state.

These points show that the formulation of guiding priorities for a university needs to be a collaborative form of values clarification, and it has as much to do with aspirations about a community's identity as it has with pragmatic assessments of costs and benefits. There is an element of Socratic method involved here. Leaders need to help to lead conversations that succeed in probing the value commitments shared by various constituencies, and thereby help to bring about a higher level of understanding across the full community of the importance and feasibility of the goals that the university adopts. To slightly reinterpret Socrates, "the unexamined strategic plan is not worth carrying out." Thus, academic leaders need to be able to lead productive conversations with groups of stakeholders, to facilitate the discovery of nuance and interconnection among goals and priorities, and to listen and adapt as they participate in these founding conversations.

A background in philosophy is very helpful to this task. Philosophy is a discipline that gives a great deal of attention to the processes of group deliberation. A philosopher-leader may draw upon his or her experience of philosophical conversation in order to help to facilitate thoughtful, respectful conversations about difficult subjects. For example, my university experienced conflict over the issue of whether a prominent spokesperson for white supremacy should be permitted to reserve space on campus to deliver a speech. The moral principles



on both sides were clear. On the one hand, the messages of hate, disparagement, and division that this speaker promised to deliver were fundamentally at odds with the philosophy of inclusion and mutual respect the university embraces. On the other hand, the rights of freedom of expression and thought, and their strong embodiment in the United States Constitution, argued in favor of allowing this speaker the same rights that any other applicant for university space would have, irrespective of content. Through conversations over the complexities of both positions, it is possible that the beliefs and values of members of the community will evolve towards a more nuanced embrace of the values and commitments the university has adopted—in this case, a full embrace of freedom of speech and association, along with a vigorous rejection of the hateful content of the proposed speech.

These are qualities that a life in philosophy can help to cultivate and deepen. Not all philosophers have the dispositions of collaboration and mutual respect that this kind of extended discussion of goals requires; but a deep involvement in philosophical thinking can provide valuable tools of critical thinking, listening, and synthesis that can substantially improve the priority-setting process.

How have these challenges of consensus building played out at my university? The cultivation of a broad consensus surrounding the goals of a metropolitan university has been the work of at least 15 years. In the early years, this took the form of open forums and discussions about the guiding goals and priorities of the university—the statements of identity around which we chose to orient our purposes as a university. In subsequent years, it has taken the form of a greater degree of purposiveness in recruitment, creation of programs, and establishment of partnerships with community-based organizations.

This campus has historically possessed a number of disparate kinds of relationships with its extended community. Some faculty and administrators had developed strong relationships with the environmental community, especially with regard to groundwater issues. Others had developed robust connections to the Arab-American and Muslim communities of southeast Michigan. And others, still, had been involved in organizations that addressed the issues of racial disparities and poverty that exist in our city and region. When it came time to have a direction-setting conversation about what the fundamental aspirations of the university should be, there were a number of views that found expression: to expand emphasis on funded research with the goal of becoming a research-intensive university; to focus on high-quality undergraduate education with a liberal arts foundation; and to embrace the outward-looking values of an engaged metropolitan university.

Thanks to an extended discussion over several years, we broadly came to see that the values and orientation of an engaged metropolitan university suited our past and present well and gave us a strong basis for planning for the future. This broad consensus on campus has permitted us to recruit faculty and staff who affirmatively value the idea of engagement with the broader urban and



metropolitan environment, and it has permitted us to deepen and widen our engagements with the issues of environment, race, public health, and inter-group civility that have been part of the makeup of the campus for decades. What has changed is that we are now explicit and confident in this sense of purpose and direction for our campus. Contrast this situation with the all-too-common reality at many universities when they offer banalities such as “we stand for academic excellence,” “we care about the success of our students,” “we are proud of the balance of athletics and academics at our university,” and “at XYZ University we are guided by strong adherence to ethical principles in everything we do.” A philosopher is well equipped to help a university community achieve a confident and authentic set of purposes and values.

## Cultivating an Inclusive Environment

I turn now to a second exercise of leadership where the sensibilities of a philosopher are helpful: the cultivation of a broad consensus about the importance of establishing an inclusive and equitable community on the university campus. It is an unhappy hallmark of social life in America today that division along the lines of race, religion, ethnicity, or sexuality play a very great role in ordinary life. Racism, religious bigotry, and inter-group prejudice continue to be powerful factors in American society. A university needs to be reflective, committed, and explicit in its goals concerning racial equality and interpersonal respect.

This fact presents a major challenge to people who want to see universities change fundamentally with regard to race and culture. We want the twenty-first-century university to be genuinely multi-racial, multi-cultural, multi-religious, and multi-ethnic. We want these “multis” because our country itself is multicultural, and because we have a national history that has not done a good job of creating an environment of equality and democracy across racial and cultural lines. And we want the universities to change, because they are key locations where the values and skills of our future leaders will be formed. If universities do not succeed in transforming themselves around the realities of race and difference, we cannot expect the wider society to succeed in this difficult challenge either.

How can a university work deliberately to foster a climate of genuine inclusiveness across its diversity? How can a university leader work effectively to create a campus environment in which difference is welcome, members of all groups express respect for and interest in members of other groups, and students, faculty, and staff genuinely learn from each other and learn how to work together in a constructive and growth-inducing way?

The challenge of creating a truly inclusive university is a difficult one. Inclusiveness is more than diversity. It is an institution and culture in which people from all social groups—those of race, nationality, gender, sexuality, religion, ethnicity—are fully embraced and respected. It is an environment in which



every individual is afforded the opportunity and space to do his or her best work, unimpeded by stereotype or discriminatory arrangements. But achieving this harmonious and democratic outcome is challenging for a variety of reasons. Most important among these is the difficulty of overcoming limitations of perspective from the various groups, including especially the majority group. Practices that seem innocuous and neutral to majority group members are often experienced as demeaning and limiting by non-majority group members—what some observers now refer to as “micro-aggressions.”

Institutional leadership is a crucial part of the answer to the question of how to bring about the culture change needed for inclusion and diversity. The culture of a university is a complex product of many factors. But the active and visible engagement of leaders in the discussion of core values is one important aspect of the causal background of positive culture change. Philosophy provides important resources for leaders if they are motivated to learn. Philosophy has spent great effort on the topics of equality, justice, discrimination, and human worth, and if we have learned these lessons well, we are much more able to speak with sincerity and authenticity about the crucial importance of dignity, equality, and civility in a democratic society. Moreover, philosophy makes it possible that our commitments to anti-racism and anti-bigotry will have a very deep and motivationally effective foundation in our ordinary decision-making and leadership. The democratic pragmatism of John Dewey is inspiring in this context as in many others.

Training as a philosopher can be helpful in the years-long process of helping a university to find its way to a climate that embodies genuine respect and inclusiveness for all its members. A sincerely held and often expressed commitment to equality and inclusion is an important ingredient in institutional and cultural change. And philosophy helps through its focus on principles and clear thinking about the fundamentals of the moral situation of human beings. This is not to say that philosophers are uniquely well qualified to be leaders for civil rights and democratic equality; individuals from many walks of life have demonstrated their own eloquence and commitment on these issues. But a philosophical education provides us with a deeper understanding of why racism, discrimination, and bigotry are fundamentally wrong, and it helps create a context for deeper interaction and communication with others about these issues.

Philosophy comes into the struggle to create a genuinely inclusive and diverse university culture in at least two ways. At its best it provides a principled and nuanced basis for commitment to the fundamental equality and equal worth of all human beings. But this is not enough—witness the racial prejudice and stereotyping that survives in the most eloquent defenders of universal moral values such as Immanuel Kant. Beyond the formulation of philosophical principles, the cultivation of a genuine openness and interest in the different life experiences of other people is needed. Race is a crucial element of life experience in



the United States today, and to overcome the mental barriers that continue to entrench racialized ideas and assumptions about each other, it is crucial for all of us to have opportunities to interact with people of different racial and ethnic backgrounds. Anyone who has taught undergraduate ethics knows that the simple algebras of utilitarianism, Kantianism, or virtue ethics have virtually no effect on the attitudes and behavior of students. What does affect students is when they are brought to think concretely about the human realities of various ethical dilemmas; and then they are brought to think much more seriously about the principles that might be invoked to reach a better understanding of what ought to be done. The value of inclusiveness on a university campus derives from the principle that an open and welcoming campus is a good thing in itself; but it also stems from the fact that the learning that students can do in a culturally inclusive environment makes it much more likely that they will learn a new respect and kinship for each other that is more profound than the stereotypes about religion, ethnicity, or race that they bring with them.

## **Building Community Partnerships**

I turn now to the external side of leadership of an engaged metropolitan university. An important part of the metropolitan mission of our campus has been a purposeful effort at cultivating partnerships with organizations in the metropolitan community. Cultivating and sustaining partnerships is not a simple thing. Trust and reliable commitment are crucial for building community partnerships as well. This is a place where the practice of field philosophy is very helpful. Community partners are not usually academics, and they are not generally interested in purely academic debates. But they are often passionately concerned about the contents of philosophical debates—the implications of human equality when it comes to schooling and healthcare, the requirements of justice when it comes to environmental risks in neighborhoods, or debates about the basic institutions of society. The most basic issues of social philosophy come into play when university leaders and community-based organizations attempt to engage in real work together. This also means, however, that university leaders need to engage in discussion and collaboration in language that is publicly accessible, not “inside baseball.” Referring to the “difference principle” in a discussion with a community organization will meet with blank stares, whereas referring to the idea that a city should be managed in ways that have the greatest impact on the least well off will be quickly understood and discussed.

A common shortcoming of relationships between universities and community-based organizations is the possibility of mixed motives and limited reliability (on both sides). Community partners often worry that the university is interested in the partnership for reasons other than the best interests of the individuals represented by the community organization—for example, a desire to gain research opportunities for faculty and students or a desire to gain



recognition for “good works.” There is a concern that the university will behave in self-serving ways in the partnership. And community partners worry that the university’s commitment will end prematurely. To put it in terms familiar from Aristotle’s conception of friendship, community organizations worry that their partnerships with universities may resemble Aristotle’s idea of “friendship based on utility” rather than “friendship of the good” (Aristotle 1987). It is therefore important for the leader of an engaged university to act deliberately in ways that cultivate trust in other community organizations. The failure of trust demonstrated at every turn in the Flint water crisis in Michigan is a riveting example of failure of partnership—in this case, between a low-income community and the state agencies charged with ensuring their health and safety.

One of the huge disadvantages created by a significantly segregated society is the fact that citizens, including leaders, have little concrete experience with individuals from different racial, ethnic, or religious backgrounds from their own. This results in problems more serious than missing the significance of the other person’s holidays or knowing something about the food and dietary preferences of the other group. It means that citizens and leaders often lack a basis for understanding the emotional and value framework of the other person, sometimes even for understanding the referents of the language of the other person. Successful collaboration requires mutual respect, a substantial amount of empathy, and a developed set of intercultural skills of mutual understanding. These capacities, in turn, are best cultivated by having the opportunity to interact in significant and extended ways with individuals from other racial, ethnic, or religious communities. Gaining inter-cultural competence requires vivid engagements that incorporate the perspectives and experiences of people with significantly different histories and environments than one’s own. It goes without saying that these kinds of engagements are not sufficient all by themselves to create a broader and more nuanced understanding of the situations and experiences of others; but extended multicultural experience is certainly a strongly enhancing factor, and its absence is likely to create a narrow worldview.

What does it take to be successful at developing and deepening meaningful relationships with individuals whose cultural backgrounds are significantly different from one’s own? It takes curiosity about the other person; a readiness to feel respect for the other person; and an ability to reach out in effective ways to elicit interaction and trust from the other person. Philosophy does not guarantee that a person will possess these features of personality, but it helps. Philosophy casts doubt on dogmatic assumptions about the ineluctable rightness of one’s own assumptions, and a corresponding tendency to be curious about the perspectives and attitudes of the other person. Philosophy is conducive to understanding how fundamental the idea of the equal worth of different people is—whether one is immersed in the ideas of Kant, Buber, or Amartya Sen. So the personal stance of being respectful of other people is supported by one’s



philosophical ideas about the nature of humanity as much as it is by one's everyday experience. Finally, the dialogical nature of most philosophical thinking—the idea that we can get to a better understanding of difficult problems by interacting with other people in an extended way—creates a personal disposition toward open conversation with other people.

It should be honestly acknowledged that conversation and interaction across the lines of race, religion, or ethnicity does not always result in a meeting of the minds or a deep basis of agreement. It is a social reality that there are structures in our society that have led to serious inequality, disadvantage, and bad treatment, and those histories are not erased by good will and mutual understanding. On occasion, in the course of my experience as an engaged university leader, I have had interactions with individuals who fundamentally mistrusted my intentions because of my race or economic and institutional privilege. These occasions have been very rare, however. And when they do occur, another set of philosophical traits is helpful—humility, patience, and resilience. It is crucial that one should avoid becoming defensive, exercise resilience in one's confidence in the importance of intercultural interaction, and accept that the other person's point of view is itself a legitimate one.

Consider an example of community partnerships that have flourished at my university. New Detroit is a racial justice organization in Detroit that was founded in the months following the uprising and civil unrest in Detroit in 1967. New Detroit is committed to the goals of ending racial disadvantage and racial prejudice in the Detroit metropolitan region. Like the Kerner Commission that was convened in 1968 to investigate the outbreak of race riots in American cities in 1967 and 1968, New Detroit embraces the idea that racial justice and racial understanding are crucial for a healthy and just future for American cities, and for Detroit and the state of Michigan in particular. New Detroit agrees with the view endorsed by many other civil rights organizations that many of the inflammatory conditions of inequality that existed in 1967 and 1968 still persist today in 2019.

I joined the board of directors of New Detroit in 2002, and have served on this board ever since. During that time I also served as chair of the Racial Justice Taskforce and participated in a round of strategic planning for the organization. The Taskforce eventually led to several important results: the establishment of an ongoing “Conversation on Race” at my university, which has now completed 15 years of operation, and addressing racial health disparities as a lead priority for New Detroit in its policy advocacy.

The founding idea for the Conversation on Race for a New Generation derived from the realization that the realities of race are different for young people than they are for the generation of people who came of age in the 1960s. Teenagers and young people in their twenties in the United States have distinct experiences of race, including discrimination, bias, excessive use of force by police, racial profiling, and notable disparities in health and education. Race



continues to be a fundamental cleavage in the United States. But these experiences are different from those that formed the political consciousness of the same age cohort in the 1960s. And the iconic monuments of the struggle for racial equality that stand out for the earlier generation (e.g., Selma, Birmingham, Bull Connor, Skokie, the Black Panthers) are not part of the experience and consciousness of the current generation of young people. The idea of the Conversation on Race was to create an ongoing forum for young people of all racial and religious backgrounds to come together for honest discussion of their various experiences of family, community, policing, classroom, and worship that forged their racial identities.

As chancellor of my university I offered to the leaders of New Detroit a commitment to undertake to create a pilot of such a conversation on our campus. In partnership with New Detroit, a year-long series of events was planned, involving concerted efforts to create an environment of trust and civility in which students would be able to interact with each other honestly about some of the most difficult issues our society faces. This was a genuine partnership between the university and New Detroit. The university provided much of the organizational effort and the funding for the series of events, and New Detroit provided advice and coaching about how to create a positive environment for these conversations. It is a particular strength of New Detroit to have developed skills of interpersonal interaction that help difficult conversations proceed in a positive and respectful manner, and New Detroit shared its knowledge in this area with the campus organizers of the events. The goal was to create an environment in which intense and transformative conversations would develop through which a diverse group of students would learn from each other and come to see more clearly the perspectives and life experiences of individuals from other groups and communities. This goal was often achieved in the many conversations hosted on campus under this program.

The Conversation on Race has become a permanent part of the programming and identity of the campus. The academic year 2017–2018 represented the fifteenth year of uninterrupted programming of the Conversation on Race. Responsibility for the program has been incorporated into the Student Life division of the university, with substantial input as well from the chief inclusion officer of the campus. The Conversation has become part of the DNA of the campus. In 2003, our campus was ready for change toward becoming a more inclusive environment; but we sometimes lacked the language and skills necessary to bring this about. The Conversation on Race helped us to develop those skills, and a commitment to multiracial diversity and inclusion on our campus is now a deep part of the culture of the campus.

How did my background as a philosopher play into this successful university collaboration? Previous sections of this chapter have highlighted the qualities of character and thought that are most helpful in creating a trusting partnership with other groups across racial and cultural lines. Fundamentally, those qualities



include curiosity, humility, respect for others, commitment to equality, and a willingness to learn. The New Detroit story depended on trust. It was necessary for me to establish my legitimate and deeply-held commitments to racial justice, and my genuine desire to learn from other people, before it would be possible for me to play any sort of “citizen-leader” role within the organization. It was also necessary to make it clear that my interest in the organization was in long-term partnership, not short-term advantage. Establishing the basis for this kind of trust required that I be a certain kind of person; and that person is one who has been deeply etched by social philosophy. Similar qualities were needed on campus to help establish and sustain the Conversation on Race. Other leaders needed to be inspired with the value of such an effort for deepening the racial and cultural sensibilities of our students. Without taking undue credit, the persistence of the Conversation on Race depended on a many-years’ commitment on my part to speaking out about the importance of inclusion, diversity, and racial equality on our campus. This has always been a personal commitment; but it is also a reflection of a deliberative effort to formulate a practical view of what the university’s most fundamental values are. And this view has a great deal to do with social philosophy.

These examples of benefits from the relationship between New Detroit and the university are fairly ordinary. But in truth, the largest benefit for both organizations is the assistance each can offer in times of stress. The university has been able to succeed in creating a welcoming environment for a very diverse population of students in part because of the advice and advocacy of leaders at New Detroit, which has been an important contributor to the inclusiveness of our campus. But equally, when various racial and religious communities in greater Detroit were under stress from provocative and bigoted opportunists nationally, the university’s steady friendship with the organization and our solidarity in the face of these provocations was an important and welcome form of support for the organization as well.

## Conclusion

My journey as a university leader has coincided with the development and refinement of the institutional mission and effectiveness of a university that its stakeholders have every reason to be proud of. I would summarize the progress of the university in these years to three large features. First, the university has come to share a broad identity as a metropolitan university which strives for positive impact on our urban region through effective engagement and collaboration. Second, the university has made dramatic progress in establishing an inclusive environment for all of its diverse constituencies. And, third, the university has been admirably effective in deepening its partnerships and collaborations with other organizations in our region. This level of success owes much to the climate of collaboration that has characterized the university in recent years.



No leader can take primary credit for the large achievements of the organization she or he has the privilege of leading. Change and effectiveness at a university are clear examples of joint products in which the excellence and dedication of the various parties within the university are crucial for success. But leaders play a role. They help secure consensus about mission and purpose; they help inspire stakeholders about the value of the work they do; they create an environment for respectful and collaborative work and learning; and they help to foster external partners who can help in achieving success that is impossible alone.

Perhaps most fundamentally, I have learned through philosophy the importance of having one's own moral compass in all of one's activities. To be "all in" for addressing racial disadvantage or patterns of sexual harassment is pragmatically wise for a university leader. But it is also a responsibility of personal moral commitment. Being clear in one's own mind about some fundamental commitments regarding social and personal equality and wellbeing sometimes requires dramatic steps; but, more often, it serves as a superb guide to formulating strategies that lead to better outcomes. If we know very clearly that we have a duty to help create a world free of racism and other invidious forms of interpersonal and structural bias, then we are more likely to give priority to institutional arrangements and local practices that lead to a more equal social environment. Dr. Martin Luther King, Jr. was well trained in the history and practice of philosophy. He also brought many personal strengths to his calling as an advocate and leader for a civil rights revolution in the United States. But it can also be said that his life of leadership and advocacy exemplified the talents and practices that would have made for an excellent university president.

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# 12

## WE ARE ALWAYS ALREADY ENGAGED

### Epistemological Fieldwork in the Real World of the University

*Naomi Scheman*

According to the prevailing disciplinary and professional norms of academic philosophy, field philosophy and those who engage in it are transgressive: in the identification and framing of problems; in the methods used to address those problems and the standards of rigor by which work is judged; and in the identification of collaborators, evaluators, and audiences. A commitment to transgression typically and understandably strains practitioners' identification both with the profession that socializes its members to identify with disciplinary norms, as well as with the institutional settings that embody them. My own forays into what I only retrospectively came to think of as field philosophy came rather from a heightened—albeit highly critical—identification with institutionalized philosophy and, especially, with the particular institution within which I was working. Somewhat to my surprise, those forays led me back to some of the decidedly mainstream epistemological and metaphysical problems I thought I had left behind.

I want to explore three of those experiences, to illuminate both how, as a philosopher, I engaged with non-philosopher collaborators on what were primarily non-philosophical issues, as well as how I came through those engagements to think differently about some core disciplinary philosophical problems. The collaborations I will be discussing include: working to articulate and create structures for building norms of trust in a community-based research project on lead poisoning; helping new graduate students to think critically about responsible research methods; and engaging with university researchers and local indigenous activists about controversial research on wild rice.



## Route to Engaged Fieldwork

When I was in graduate school in the early 1970s, I was involved, along with many of my friends, in the early years of the Society for Women in Philosophy (SWIP) and of what became the Radical Philosophy Association (RPA). As exciting as I found these projects, my own philosophical work, interests, and inclinations seemed at odds with my political commitments: I wasn't especially drawn to moral, political, or social philosophy, but was instead immersed in epistemology and metaphysics; I was convinced, along with nearly all other analytic philosophers at that time, that these fields had nothing to do with politics or with anything else in what was referred to as "the real world." Questions about the nature of knowledge and of existence might seem to be questions about the real world, but they weren't posed as such—certainly not as questions arising in a world characterized by unjust structures of power and privilege. Nor were we, as philosophers, expected to interrogate our own positions, including our relationships to those structures and how those relationships might shape our perspectives and responsibilities when it came to addressing epistemological or metaphysical issues.

The conviction of abstracted detachment did not survive. I now describe what I do as practical or engaged epistemology and metaphysics (*not* as "applied," an unfortunate term that suggests that the intellectually, theoretically important work is done by philosophers who then apply that knowledge to some real-world situation). In particular, finding my own philosophical voice involved breaking down the barriers not only between philosophy and (the rest of) the world, but also between epistemology and metaphysics and moral, political, and social philosophy and becoming, specifically, a feminist epistemologist and metaphysician. Most of the work I have done over the past 40 years has been on the fringes of academic philosophy and in interaction with non-philosophers inside and outside the academy on practical problems that are not, in the first instance, philosophical—ranging, as I will discuss below, from the ethics and politics of community-based participatory research, to issues of trust and trustworthiness in social justice oriented research in the Global South, to disputes between university researchers and indigenous people about wild rice. That work is intrinsically satisfying—in seeing that as a philosopher I have something of value to contribute—but it has also been exciting to discover that when I return to more disciplinary turf it is with fresh insights into old problems.

One way of framing the move away from abstract detachment was noticing that analytic epistemology failed to get a grip on the problems of knowledge and belief as they arose in the real world. This failure characterized even naturalized epistemology in the Quinean vein, which purported to attend to how beliefs are actually acquired but did so by theorizing about the cognitive capacities of a supposedly generic individual knower. As Phyllis Rooney and others



(including me) have argued, true naturalizing—including the naturalizing of normativity (that is, the articulation of epistemic norms that have a grip on actual practice)—needs to attend to the conditions under which we acquire and share beliefs (Rooney 1998). Those conditions are thoroughly social (most of what we want and need to know comes not from our individual cognitive faculties but from other people) and deeply inflected by structures of power and privilege. Recognizing that fact made me realize that, as a faculty member in a research university dedicated to the discovery of knowledge that others are expected to trust, I was working in an epistemologist's playground; and my career has mostly unfolded as—somewhat intentionally but mostly serendipitously—I took advantage of that location.

My appointment was in the Philosophy Department, but for all of my time at the University of Minnesota (from 1979 until my retirement in 2016) I was also a full member and, for three years, chair of the Department of Gender, Women, and Sexuality Studies (formerly Women's Studies)—a department and (inter)discipline deeply committed to the practice, not just the theory, of social justice inside and outside the academy. I was also an active participant in faculty governance, with a particular interest in issues of diversity and inclusion, and briefly an associate dean in the Graduate School, in which role I participated in shaping initiatives in the responsible conduct of research (RCR) with an eye to social justice and trustworthiness. I took these not to be the add-ons they are typically treated as—if they are considered at all—but rather the foundation on which all the specific principles and rules rest. I was active as a faculty union organizer, working with contingent as well as tenure-line faculty and in solidarity with other unionized university employees, and I served as president of our American Association of University Professors (AAUP) chapter. I was a member of the faculty advisory board of the Interdisciplinary Center for the Study of Global Change (ICGC), which focuses on social justice oriented research in the Global South; a co-founder of GRASS Routes, a program to foster community-based participatory research; and a member of a committee working with Minnesota Indian tribes and University agricultural researchers around tribal concerns about University research on wild rice (these last three, and my work on RCR initiatives, were the sites for the experiences I mentioned above and will discuss below). In general, I was a gadfly in solidarity with a diverse group of trouble-makers.<sup>1</sup>

The over-arching impetus behind these engagements goes back to my experiences as a student activist in the 1960s, passionate about universities and dismayed by their increasing enmeshment in a wide-ranging set of practices and stances that we then called the “military-industrial complex” and that now is conceptualized as neo-liberalism. Among all the reasons to be critical of those practices and stances is one that is of particular relevance to an epistemologist. One of the major functions of a research university is the discovery, creation, and critical sharing of knowledge, and one of the tasks of epistemology ought to



be to say something about the conditions under which knowledge claims from within the university are rationally justifiable, especially to diverse outsiders. For some academics those claims have practical import and our hope is that people will act on what we say is the case; for others, our hope is more modest—that what we say will be taken seriously by those who share our interest in our objects of study. But for all of us it matters that at least some people outside the university find us and what we do to be trustworthy. We tend to be quite attentive to the various outside forces that work against us in this regard, but even as there is much to lament about the widespread cynicism concerning academic expertise, the first responsibility of those of us inside universities should be to ensure that, if and when and insofar as others do believe (or at least take seriously) what we say, it would be rational for them to do so. We tend to simply assume that it would be, but, as I have argued elsewhere, the complex apparatus of mechanisms designed to ensure the integrity—hence, the trustworthiness—of our work in the eyes of similarly credentialed peers is inadequate to ground our trustworthiness in the eyes of variously marginalized or subordinated outsiders (Scheman 2001).

One way of thinking about these issues is through discussions about community-engaged research, which is nearly always approached as though it is something that some academics do sometimes. That is, I suggest, a problematic starting point. Certainly only some of us and usually only sometimes do research that is explicitly framed in those terms, but if we think of engagement in the sense that applies to gears—if *this* turns, then *that* turns with it—we are all always already engaged with the diverse publics on whom we are dependent, who stand to be affected by what we do, and who have interests in and reasons to care about our objects of knowledge. A related misconception concerns the “public” or the “community,” which is presumed to lie beyond the borders of the academy, a presumption that draws our attention away from the relationships among all those who work inside the university, including the increasing ranks of contingently-employed faculty, students, and the many non-academic employees who make our academic work possible. If we think about community engagement in these terms, our attention is drawn to how the university is structured, how it functions, and how it is perceived, and to how those perceptions ground the trustworthiness—or, too often, untrustworthiness—of the work academics do. What do members of diverse communities know about the university as a physical and economic presence in the neighborhood? As an employer? As a place where their children go to learn and return with stories about how their families, communities, and traditions are (or are not) taught about and respected? As a place from which researchers materialize and disappear and then seem to be responsible for problematic theories and policies?

I saw my involvement in university governance as grounded in *epistemological* concerns such as: What would it take for the university to be—and to be reasonably perceived to be—a trustworthy site for the creation of knowledge?



Most fundamentally, what it would take is for it to embody a culture of respectful engagement, both among those who variously work there and with those whose experiences and perspectives have something constructive and critical to contribute. Thus, for example, a core reason why a research university in particular needs to have a diverse student body is in order to disorient the faculty by confronting us with perspectives that few of us are likely to be familiar with, and that are needed to overcome the collective solipsism that results both from legacies of racial and class privilege as well as from the workings of disciplinary socialization.

I will focus on three initiatives I was involved with at the University of Minnesota. In each case, although I cannot point to particular concrete outcomes, I think that, as a philosopher, I brought something of value to the work that others were doing—largely, attentive listening, drawing connections and posing questions, and offering frameworks for constructive sense-making: I modeled how to cultivate habits of thought. In particular, as a Wittgensteinian, I am suspicious of the conviction that what really matters is somehow *deep*, lying buried under the “merely” superficial. So, for example, in moving from the local toward the global, I tend to avoid generalizing in favor of looking for connections: not how what happens here is essentially similar to what happens there, but how what happens here is dependent on or vulnerable to what happens there, and vice versa. Questions include: What do we (academic insiders) mean when we say the things we say? To whom are we responsible? Whose work makes our work possible? Who is affected by what we do? Who else knows something about the things we take as our particular objects of knowledge? How do we learn from, and with, them? I also want to focus on what, as a philosopher, I took away from engaging with non-philosophers and asking questions such as these, and on how my work in epistemology and metaphysics has been indelibly shaped by those encounters and engagements.<sup>2</sup>

## GRASS Routes and RCR

As I took on the position as an associate dean in the Graduate School at the University of Minnesota, I was introduced to two women, Cathy Jordan and Susan Gust, who were at the heart of the Phillips Neighborhood Healthy Housing Collaborative (PNHHC), a collaborative research project into ameliorating the effects of lead poisoning on children in an economically disadvantaged, multi-ethnic community in Minneapolis. Cathy is a pediatric neuropsychologist on the faculty at the University of Minnesota, and Susan works in community building management and renovation and is a long-time community activist and organizer. The PNHHC was initiated by community members, who approached the University, and the project continued under community leadership (Jordan et al. 2000). I was immensely impressed by the way Cathy and Susan thought and spoke about what it meant to do a federally



grant-funded, controlled trial in a deeply collaborative way, under community leadership and with community input at every step of the way, from study conceptualization and design, to implementation, and to the interpretation and dissemination of results. Part of the ethos they shared concerned the compatibility of scientific rigor and participatory democratic process—compatibility that required hard work and a commitment to working through conflict and misunderstanding.

Although I never participated in the work of the Collaborative, I joined with Cathy and Susan in organizing a conference called *Designing Research for Change*, which brought together community members, university researchers, and funders to explore the challenges to collaborative research. Based on what we learned, we formed an initiative we named GRASS Routes (GRASS stands for Grass Roots Activism, Science, and Scholarship), which received support from the Graduate School, the Office for Public Engagement, and the Academic Health Center (Jordan et al. 2005; Gust and Jordan 2006). We envisioned three main areas of focus. The first was on helping university researchers—graduate students, postdocs, and faculty—to acquire the skills needed to work in genuine partnership with non-academic community members; the second was providing guides to bring together the necessary members of research collaboratives, including helping community groups unfamiliar with navigating the university to find academic partners and providing mentors to help collaborations weather the complexities of relationship building; and the third was what we called a PUBLICATION Fund to provide support for making research findings available to communities in engaging, accessible, and useful formats. Most of what we actually accomplished was in the first category, and Cathy and Susan have continued offering classes and workshops. They have also gone on to contribute to national efforts to foster community-based participatory research, especially in the health sciences.

I brought to our work together a framework for articulating and arguing for the value of serious, mutually respectful engagement, especially as informing the ethos of university research. What I learned from Cathy and Susan also informed my participation over the years in a range of RCR initiatives, especially as RCR “training” became mandatory across the University. Often the only non-biomedical researcher in the room, I tried to convince my colleagues that seeking ways to coerce faculty—especially in the humanities—to take even watered down RCR training requirements seriously was seriously misguided (a majority of such faculty would hack their way through the underbrush to avoid going through even a hoop ten feet in diameter, placed on the path they were already walking along). Rather, we had to find ways to engage all faculty, postdocs, and graduate students in interesting discussions that we could argue were relevant to their own concerns. We needed in particular to make a case for the importance to all of us, as actually or aspirationally employed academics, to be responsibly reflective about our complex enmeshments in the institutions that



socialize, discipline, reward, and punish us; institutions that play complex—valuable, threatened, and often problematic—social roles.<sup>3</sup>

Recognizing that epistemic normativity (as expressed, for example, in scientific method) was inseparable from moral and political normativity led me (with a little help from my friends, most notably Hilde Lindemann) into bioethics, mostly in order to argue that the supposed tension between pursuing knowledge and behaving ethically is mistaken. Rather, an ethos of mutually respectful engagement is better suited than an ethos of disinterested objectivity to realize the aims of accurate, trustworthy, usable knowledge. Seeing the ethical as a constraint on (rather than as intrinsic to) the epistemic leads, for example, to a protectionist stance toward the involvement of human subjects in research—“protection” being the word used in the guiding federal statutes and policies. The perceived need for protection is understandable, given the genesis of the relevant policies and programs in notorious cases of abuse, from Nazi experimentation on concentration camp inmates to the Tuskegee study, in which effective treatment for syphilis was withheld from Black men in order to study the progress of the disease. And it is, of course, true that researchers are typically in positions of power in relation to their research subjects. The centrality of informed consent to Institutional Review Board (IRB) requirements and, specifically, the focus on the informed consent forms that research subjects are required to sign, however, delineate the relationship between researcher and subject in ways that not only (often appropriately) acknowledge but also both presume and reinforce the differences of power between them. This focus also frames the issue as a matter of protecting subjects’ autonomy, which is presumed to be pre-existing and inherent, rather than relational and emergent.<sup>4</sup>

In general, the mechanisms designed to protect research subjects, while appropriately acknowledging that power imbalance, actually serve to reinforce it and can make it difficult for those who would, rather, subvert it. Thus, for example, researchers are typically required to submit detailed plans to the IRB for the research they intend to undertake before actively engaging those who will be the subjects of the research, effectively precluding the participation of those who might be among those “subjects” (i.e., objects) from participating in formulating the research plans. In addition, the relevant relationship is taken to be between the researcher(s) and individual subjects. Within the usual IRB framework there is no mechanism for taking seriously the ways in which research can affect communities: suggestions that communities’ interests should be taken seriously tend to devolve into concerns about who might be in a position to sign a consent form, and pointing out diversity among community members is typically taken as a reason to reject the possibility of requiring community approval rather than as an important challenge that ought to be embraced as part of serious engagement.<sup>5</sup>

My work with GRASS Routes and with various aspects of the University’s responsible conduct of research efforts was informed by, and in turn informed,



my thinking about the issues that distinguish field philosophy, as those issues arise for all of us, no matter what our discipline. Why are we doing what we do? Why does it matter—and to whom? Whom is our work likely to affect? With whom do we need to be respectfully engaged in order to do that work well? To whom are we—and ought we to be—accountable? Who sets the standards for our doing our work well and who evaluates our efforts? These questions tend to be taken more seriously in some disciplines than in others, and they tend not to be asked much in philosophy. But what I have come to see is not only that we, like those in other disciplines, need to take them seriously as questions about the activity of philosophy, but, more fundamentally, that they are philosophical questions: philosophers have distinctive contributions to make to addressing them, and philosophy will be enriched by our taking them seriously.

## Ways of Knowing

The Interdisciplinary Center for the Study of Global Change (ICGC) brings together faculty, postdocs, and graduate students across the University of Minnesota committed to social justice oriented research in the Global South. First year students in the graduate minor in Development Studies and Social Change in ICGC take a seminar called Ways of Knowing. Although I don't think of myself as doing research—and my previous experience in the Global South had been one week at a conference in Havana—I am a card-carrying epistemologist and was known to many of the ICGC faculty as someone who is thoughtful about the sorts of issues that arise in the research they do. Central to what they knew about me was my having taken the university itself as a site for philosophical fieldwork, both theoretically, as I argued for putting trustworthiness in broad, morally and politically inflected terms at the heart of all research endeavors, and practically, as I worked on initiatives such as GRASS Routes and responsible conduct of research programming. Consequently, I was asked to teach the Ways of Knowing seminar, which I did twice; I also spent two months at the Center for Humanities Research at the University of the Western Cape as part of an ongoing set of faculty and graduate student exchanges between the two centers.

There were approximately 15 students in the seminar. They were enrolled in graduate programs across the University and had different relationships to their intended sites of research: for some it was their home; others had previously spent little time there. I invited colleagues to meet with us for most class periods, sharing some of their own work and addressing the core themes of the seminar from their own experience. I explained the aims and orientation of the seminar as follows.

Research ought to be trustworthy. This is a truism, whatever the subject matter, discipline, or site of the research, and whatever the identities and social locations of the researchers and of their research concerns. But, depending on



these and other factors, just what it means for research—and researchers—to be trustworthy is both variable and complex; and even for any particular researcher, being trustworthy in one context and in relation to one audience may well be at odds with being trustworthy in others. This seminar will explore these complexities both theoretically and as they arise in particular research projects. We will focus especially on two sorts of tensions around trustworthiness. First, disciplinary and interdisciplinary: How do particular disciplinary methods serve to ground the trustworthiness of research in those disciplines, and how do methodological and other differences lead to—problematic or generative—tensions in interdisciplinary communication or collaboration? Second, institutional and locational: What are the specific challenges for the trustworthiness of research based in universities such as the University of Minnesota on issues of concern to the Global South, and what sorts of practices either undermine or help to support individual and institutional trustworthiness? How do researchers' own—often multiple and complex—social locations help or hinder their trustworthiness in relation to the diverse others with whom they engage in the course of their work?

My hope for the seminar was to weave critical attention to these tensions into students' experiences of being socialized into a discipline (or a specifically delineated interdiscipline)—not with the aim of resolving them, but rather of articulating and better understanding them and learning habits of responsibly attending to them and to the diverse, often conflictual relationships that structure them. The second time I taught the seminar the students' final assignment was to write a letter to themselves ten years in the future. I asked them to remind their future selves of what they had been thinking about during the seminar in light of how they thought about the changes and challenges they were expecting to encounter in the intervening years. And I asked them to pass on their hopes for how they would be thinking about the tensions around trust and trustworthiness in the work they hoped to be doing.

As with my work with GRASS Routes and RCR, I saw my role as a philosopher as helping to articulate and cultivate an institutional culture of attentiveness to the full range of relationships—of dependencies and vulnerabilities—that shape and are shaped by academic practices, especially as how we live those relationships has implications for the trustworthiness of what we do.<sup>6</sup> That culture is at the heart of ICGC's identity, but given the wide (disciplinary and geographic) range of work that researchers do, the ethos tends to be more implicit than interrogated and explicitly argued for. My aims for the seminar were not to communicate a body of knowledge but rather to stage a practical intervention into the socialization of a generation of researchers that drew on and was fully in accord with the ethos of ICGC but challenged and posed (hopefully generative) tensions with students' home departments and disciplinary norms. The task of revealing and critically examining implicit assumptions and norms is quintessentially philosophical, but not well pursued from the



armchair, and it was both challenging and deeply rewarding to take on this task in sustained engagement with students and colleagues in ICGC.

## **Nibi-Manoomin Bridging Worldviews**

Following a chance encounter with Karl Lorenz in a local restaurant, I was drawn into the Nibi–Manoomin Bridging Worldviews (NMBW) initiative. ‘Nibi’ is the Anishinaabe (Ojibwe) name for water, and ‘manoomin’ is the name for wild rice, which grows on the water and is a source of food, medicine, and livelihood, as well as being sacred and core to the identity of the Anishinaabeg, who live in northern Minnesota and in southern Ontario and take themselves to be charged with protecting it.<sup>7</sup> Researchers at the University of Minnesota have worked with non-native commercial growers to develop strains of cultivated wild rice and have also done research to decipher the wild rice genome; both types of research raise concerns among the Anishinaabeg about the integrity of the manoomin. The NMBW initiative brings together tribal leaders and (indigenous and non-native) University researchers to work on getting the University to be responsive to tribal concerns, and to build trusting relationships in the face of a difficult and trust-eroding history.

My participation in this work mostly involved attending a lot of meetings, listening and asking questions, developing relationships, and, in conversation with scientists and administrators, helping to make the case that attentiveness to tribal concerns and interests was not only ethically obligatory but also epistemically valuable. Against claims that recognizing Anishinaabe concerns would risk infringing academic freedom, I argued for cultivating a research culture that valued respectful engagement with diverse perspectives, especially those of people and traditions with long-standing, intimate relationships with the objects of scientific study.<sup>8</sup> University research on wild rice had not only failed to engage with the tribes but had been only contingently tethered to the state: ironically, efforts to develop cultivated strains of wild rice, while responsive to Minnesota growers, have largely benefited California farmers, and the deciphering of the genome could be done anywhere with a well-enough equipped laboratory. What could be done only *there*, in Minnesota, was the “bridging worldviews” that animated the NMBW initiative. The cultivation of ways of knowing that honor both indigenous and western academic worldviews is, globally, of enormous urgency as well as being extraordinarily difficult—witness the snarls and roadblocks that spring up around efforts at what is (problematically) referred to as “sustainable development” (Scheman 2012). As an epistemologist as well as, for much of this time, the president of our campus AAUP chapter (hence an official guardian of academic freedom), I had a useful standing in conversations with scientists and administrators.

A goal for the relationships the initiative worked to cultivate is to make possible collaborative research to address threats to the manoomin, including the



threat of mining industry pollution of the lakes on which it grows. Another, broader aim is to help university researchers to better understand and appreciate very different ways of thinking about and relating to manoomin, other plants, and non-human nature in general. What, for example, might plant scientists learn from how archeologists have grappled with the meaning to indigenous peoples of the land, the human remains, and the artifacts that are the archeologists' objects of study? (Nicholas and Wylie 2009). The initial consideration is the showing of respect toward others even if one does not share their beliefs by, for example, respecting what they hold sacred; but such attentiveness can lead to the transformation of one's own relationships to those things, revealing what one might come to see as an anthropocentrically instrumentalist attitude toward the other-than-human world.

My participation in NMBW meetings, working groups, and symposia had this sort of transformative effect on me. It began when I listened to Paul Schultz, an elder from the White Earth Reservation in northern Minnesota, explain the contrasts between a western academic worldview, with humans at the top of a 'smartness' pyramid and stones at the very bottom. He contrasted that picture with an indigenous worldview that worked from the oldest and hence wisest things—stones—through plants and other-than-human animals to humans: babies in need of learning from their wiser elders. I had trouble making anything remotely like literal sense of this until I thought about why being around for a long time might make one wise. Longevity alone wouldn't do it: wisdom could come only from being shaped, changed, affected, moved by what one lived through. And although it might be a western, perhaps especially academic, slur to compare insensible, non-responsive humans to stones, actual stones are anything but unaffected by what's around them. They are, in fact, narratives of the eons through which they have come, starting with their origin stories as igneous, sedimentary, or metamorphic, and continuing through encounters with earthquakes, glaciers, oceans, and rivers, excavators of quarries, builders of roads and walls and houses. They do not respond to everything around them (but then neither do we), and they respond distinctively, depending on the type of stone they are and on what has previously happened to them. I don't imagine that I experience or understand the world as someone immersed in an indigenous culture might; but the deep disorientation occasioned by my encounter with the people I came to know through my work with NMBW has changed how I think about metaphysics, in particular, about the fundamental question of what distinguishes a complex object from a random jumble or heap (Scheman 2008, 2016).

## Conclusion

It's possible that one day I will pull together these and other adventures as a free-range epistemologist and metaphysician into a book. I imagine starting with



ontological reflections on a narrative, relational, difference-oriented conception of thing-ness; moving to what an epistemology and methodology responsive to such an ontology would look like: more like community-based participatory research than like laboratory science, more attuned to connection and vulnerability than to similarity and generalizing. From there I would like to propose a vision for research universities, especially public ones: immunizing themselves against what I call ‘the global excellence pandemic,’ rejecting the deracination and homogenization of rankings in favor of being the particular institutions that they are, embedded in particular communities, with specific ties to specific elsewhere, responsible and responsive. Practical, engaged philosophy has an important role to play in this vision in critical support of universities as increasingly imperiled sites in the real world (imperiled by hostile outside forces as well as by internal crises of purpose). Philosophy as a discipline will be reinvigorated by taking up that challenge.

Appendix

I wrote this case study in March 2005 to be used as instructional materials for the responsible conduct of research sessions I led for the University of Minnesota’s FIRST Program (Fostering Integrity in Research, Scholarship, & Teaching). Although the specifics are fictional, it is drawn from what I learned from my work with GRASS Routes, and I have been assured that it is all too realistic.

CASE STUDY: POISONING THE WELL

East Central is a neighborhood with a high crime rate, problems with drugs, and failing schools. There are also several active community organizations. Professor A from State University heads a research team studying the East Central neighborhood and has received approval from the Institutional Review Board (IRB) for her research. Nothing she or her team does violates regulations; however, they have not involved members of the community in defining the research problems, designing and carrying out the research itself, or interpreting the findings, nor have they communicated those findings directly to members of the community.

Community members learn about Professor A’s research findings from governmental agencies that refer to these findings as rationales for new programs. Many members of the community think these programs are inappropriate and misguided, and the research strikes them as presenting a misleadingly one-sided and offensively condescending view of their community.



A year later Professor B learns that one of the community organizations in East Central has been discussing a problem that is related to his research interests. Professor B, who does not yet have tenure, along with several graduate students, approaches members of the community organization to discuss the possibility of a collaborative research project to address that problem. When the members of the organization learn that Professor B works at State University, they want nothing to do with him, his students, or the project.

Professor B thinks that he can win the confidence of the East Central community organization, but it would take a lot of time. He won't be able to get funding for that work of building trust, nor will that work yield any publications. Neither he, nor his graduate students, can afford to take the time necessary to build the trust needed to do the research they want to do.

Professor A claims that the community members are only upset because they did not like what she found. She stands behind the validity of her research. She does not think she needs to adopt more collaborative research methods, because she sees them as compromising the objectivity of her research.

### *Questions*

- 1 Is there anything that Professor B or State University can do about this situation, or about similar situations that can be expected to arise in the future?
- 2 Given that she has not violated any regulations, Professor A is protected by academic freedom, but what responsibility does Professor A have toward Professor B and his students (especially if they are in different colleges and their areas of research have nothing to do with each other)?
- 3 What responsibilities does State College have toward Professor B and his students?

## **Notes**

- 1 On feminist trouble-making, see Sara Puotinen's blog (Puotinen 2017). One form that trouble-making takes is whistle-blowing, and a philosopher in the University of Minnesota's Center for Bioethics, Carl Elliott, has for many years been trying to get the University to take responsibility for a seriously ethically compromised psychiatric drug trial that led to the suicide of Dan Markingson. As someone who supported Elliott's efforts in the face of the administration's attempt to demonize him, I argued that faculty across the University had both the right and the obligation to push for a full, independent investigation, given our dependence on the actual and perceived integrity of the institution in which we worked. For the details of the case, see Elliott (2017).



- 2 For anyone who is interested, or who absorbs ideas better on video than in print, many of the thoughts in this chapter are available in an interview I did with Peter Shea for *The Bat of Minerva*, a public access program archived on the site of the Institute for Advanced Study at the University of Minnesota. It is available at [www.youtube.com/watch?v=udA1Pp5KWY0](http://www.youtube.com/watch?v=udA1Pp5KWY0).
- 3 See Appendix for a case study I wrote for the responsible conduct of research sessions I led. For the theorization of objectivity as trustworthiness that I came to largely based on my work with GRASS Routes, see Scheman (2001).
- 4 On alternative ways of conceptualizing respect for autonomy, see Scheman (2008).
- 5 See Jordan et al. (2000) for discussion of community involvement.
- 6 For the papers that owe the most to my work with ICGC, see Scheman (2012, 2014).
- 7 For an overview of the issues, see Doerfler and Durkee Walker (2009).
- 8 On the complexities and potential pitfalls of such engagement—including the abstraction and commodification of indigenous knowledge—see Bowman (2017).

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# 13

## PROMOTING ETHICS IN STEM AND SOCIETY

*Rachelle Hollander*

This chapter takes a chronological approach to discussing a non-traditional, lengthy philosophical career working in the federal government—at the U.S. National Science Foundation (NSF)—and in a non-profit federally chartered organization—the National Academies of Sciences, Engineering, and Medicine (NASEM). Both organizations include a focus on ethics in science, technology, engineering, and mathematics (STEM) in their activities. They also differ substantially. NSF is a federal agency with a yearly budget appropriation from the U.S. Congress. Its mission is to support research infrastructure and projects, and science and engineering education, throughout the country. NASEM is a federally chartered non-profit honorary membership organization of scientists and engineers who provide advice to federal agencies, other organizations, and the public about technical dimensions within policy-related issues. Both organizations have employed a few philosophers over the course of their existence, but the vast majority of their professional employees are scientists and engineers.

The evolution of a career is to some degree haphazard, but it may be possible to draw some general lessons and note some cautions from its development. The chapter takes an episodic look at the evolution of my circumstances and skills as I worked in these organizations, and speculates about how different responses on my part might have improved outcomes. I try to extract some themes, questions, and lessons from my experience at particular stages, as well as in general.



## Introduction

The chapter is organized into three career stages or components: early or pre-career development, the main stage or central focus, and the afterlife which the main career made possible.

The early stage includes undergraduate studies and extracurricular activities, graduate studies and interregnum pursuits. An important aspect of this period includes a set of side events or engagements that affected later career choices: civil rights, student newspaper, Johns Hopkins University (JHU) alumni magazine, and the University of Maryland College Park (UMCP) programs in history and philosophy of science and philosophy and public policy. My tasks as associate editor of the JHU magazine included informal field philosophy (observational studies), and these observations along with prior and later efforts stimulated me to identify empirical phenomena that affected my understanding of ethical issues for science, engineering, and medicine. These studies helped to clarify the meaning and implications of philosophical arguments, concepts, and positions. My work on consent, risk and safety, and agricultural research benefited from paying attention to context, circumstances, and cases—to examining how what is the case is relevant to what should be the case.

The main stage of my career involved government employment (1975–2005) at the NSF. I was still completing my doctorate in philosophy and the new field of applied ethics when I started working there. I was hired to assist the NSF in initiating its programs focused on ethics and STEM. Much later I wrote entries for both editions of the *Encyclopedia of Science and Technology Ethics* (2005, 2014) about these developments, and much of the discussion in this chapter concerning NSF is based on those entries.

My afterlife consisted of part-time employment (2007–2017) at the National Academy of Engineering (NAE) to develop new ethics programs at the NAE Center for Engineering Ethics and Society (CEES), which is part of NASEM.

## Career Prelude

Individual strengths often come with associated weaknesses, and how they play out depends on the context in which people find themselves. I began college in September 1961. From early undergraduate days, I had the strength of wide-ranging curiosity that came with a weakness with respect to focus and depth. I took numerous science courses as an undergraduate, and I found time to edit the college newspaper and become politically active in civil rights and a tutorial program for Baltimore High School students. In my graduate program in philosophy at UMCP I had difficulty identifying a dissertation topic, for I did not share the metaphysical and epistemological interests of UMCP philosophy faculty. I took a leave of absence and went to work at the JHU alumni magazine for several years, and that began my next 40 or so years in the field of STEM ethics.



The JHU alumni magazine covered the undergraduate campus and the medical school and the school of public health, both of which were affiliated with the hospital. My “beat” included the undergraduate science and engineering departments and those downtown campuses and the hospital. I interacted with faculty in these places and became intrigued by the communication difficulties I saw between different professionals, and between them and clients and the public. This was also the time during which public outrage about medical experiments on patients or subjects whose consent was not asked for or received became a matter of considerable media interest.

Around that time, the UMCP philosophy department launched a Center for Ethics and Public Policy; the new department head was a philosopher who worked in the area of STEM ethics—Samuel Gorovitz. I proposed a dissertation topic in the new field of biomedical ethics, and he agreed to supervise it. The dissertation made use of my empirical exposure to communication issues for clients/patients and physicians and other medical personnel that was part of my experience at the magazine. The experience led to a revised conceptualization of informed consent (Hollander 1984).

Just before I returned to graduate school in the mid-1970s, the philosopher Robert Baum came to work at the NSF, on the new ethics and science program activity. Baum specialized in ethics and technology and came from a university known for educating engineers, Rensselaer Polytechnic Institute. He was looking for an assistant, and he hired me.

What do I take from this? If you can afford to (which most of us whose education did not require debt could), and you don’t wish to commit to an academic career within a well-crafted disciplinary approach, don’t worry about twists and turns on the route—it may turn out better than you think. The lack of tenure-track employment in the field of philosophy at the time also had an impact on my career choices, and this may remain an incentive to look elsewhere. Turning from the practical or personal to the intellectual side of career development in philosophy, you may find—as I did—that making a connection to current issues and problems provides an important stimulus to the identification, and then examination, of philosophical issues.

## **At the National Science Foundation**

As an independent (non-cabinet) agency of the Federal Government, NSF receives an appropriation each year through legislation from the U.S. Congress. Its appropriation in fiscal year (FY) 2017 was around \$7.5 billion—about the same as it was in 2010. The National Institutes of Health (NIH) budget for FY 2017 was about \$30 billion, of which perhaps half is for the category of basic research. Going by the numbers, medical research has higher priority in the U.S. than all other civilian branches of sciences and engineering research and education (Mervis 2018).



NSF interest in science ethics began with the agency's program officers in the biological sciences in the early 1970s. These managers recognized the potential for new developments in science and technology, particularly in the biological sciences, to raise societal questions about their trajectories and potential effects. Many thought these questions worthy of study, but wondered how to incorporate such activities into an agency devoted to scientific research and education. NSF proceeded by organizing an advisory committee to report to the NSF Director, and with the involvement of the National Endowment for the Humanities (NEH). After several years, the advisory committee recommended that NSF establish a distinct program with its own review procedures; NEH could cooperate where it saw relevance to its mission.

The new NSF ethics program made its first awards in 1976, with an interdisciplinary review process that continues to this day. Besides soliciting reviews by mail (later e-mail), the program used an advisory panel that included a wide range of scientists (including social scientists) and engineers as well as scholars in the humanities. It provided a panel assessment and rating of the proposals the program received in response to an announcement that highlighted its interest in the wide range of ethics issues arising in STEM research and innovation.

Both the NSF History and Philosophy of Science program and the ethics program considered and supported research on a broad range of issues concerning science and technology in society. Biologists and engineers recognized that public concerns about risk would benefit from research on, and education about, ethical and societal implications of new scientific and technological developments. This orientation can be contrasted with the concern for ethical standards in scientific practice, which became a major theme later in the 1980s, with media, public, and legislative attention to accusations of scientific fraud. Most of the projects that the NSF ethics program supported can be grouped into one or another (or both) of these thematic areas.

Many view ethics as limited to a subject area that focuses on individual infractions rather than a broad inquiry that includes domains such as, e.g., social justice and environmental ethics, and includes collective as well as individual responsibilities. My interest in science and engineering ethics began with my concern for equity and risk issues that transcend issues of good scientific practice. Although these issues can shade into each other, many scientists are more comfortable viewing problems through the lens of good practice. This lens can allow people to view ethical problems as primarily those of individuals; even professions that address them as a collective responsibility may focus on individual infractions (Hollander 2005). This orientation can leave unchallenged the dominant paradigm in U.S. science as contributing to wealth rather than to equity. Nor does it lead to challenging the control of projects by scientific experts.

The ethics program did not have a natural home in the main sections of NSF, called directorates. It was housed first in the Directorate for Education



and Human Resources, since that leadership was receptive to it; then it moved to the Directorate for Scientific, Technological, and International Affairs (STIA)—known informally as the Everything Else Directorate. This was a fortuitous move, since the Reagan Administration abolished the education directorate; had ethics still been in that directorate, it might have quietly disappeared. From STIA, the program moved to the Biological, Behavioral, and Social Sciences Directorate and, when that Directorate split in 1992, ethics activity moved with social and behavioral sciences programs, including History and Philosophy of Science, to the new Directorate for Social, Behavioral, and Economic Sciences, where it remains (Hollander 2015).

With the program's focus on issues of ethics in science, technology, and society came the need to engage with scholars in Science and Technology Studies (STS) who view science and engineering as socially constructed phenomena themselves incorporating ethical implications. Grouping together ethics with History and Philosophy of Science (HPS) made intellectual sense. However, an intellectual distance remains between scholars who study ethics in science and engineering and those in HPS and STS.

In all of these periods, program awards focused on on two kinds of issues: ethics and STEM in society and ethical standards for scientific and engineering conduct and practice. While these concerns overlap, the former was the predominant concern in the years until the 1990s; the latter became much more dominant after the millennium. Support for ethics research at NSF is now concentrated in the program called ER2, or Ethical and Responsible Research, with a focus on educating for ethical behavior in scientific and engineering education and in conduct for both research and practice. To some extent the ER2 priorities emphasize issues of academic and research ethics rather than more general issues about the ethical implications of scientific and technological trajectories and their effects (NSF 2019a). However, the NSF STS program literature still identifies ethics explicitly as part of its priorities with a strong emphasis on science and technology in society (NSF 2019b).

Of special interest to readers of this chapter is the role of the philosopher working with a broad range of scientists and engineers over the course of 30 years of program development, implementation, and evaluation. Generally, most successful applications to the NSF ethics programs were interdisciplinary; to meet NSF requirements, investigators often partnered with colleagues in fields other than their own, and these colleagues came from their own and other institutions. My field philosophy involved assisting investigators to contact other persons working on similar problems. It could take a while for these interactions to bear fruit, but sometimes these contacts led to ongoing collaborations.

There are several ways in which field philosophy played a role in my work at NSF. Identifying topics for research required interactions with colleagues in the sciences and engineering to examine how science and technology shapes the world and the associated ethical issues. As noted above, it also included fostering



partnerships between researchers with similar interests and concerns. A second important dimension was recognizing when public concern would buttress the arguments in support of NSF ethics programming. And a third arena required outreach to assure that relevant research and policy communities could also identify these issues.

I describe some of these kinds of efforts below. Before doing so, I will touch very briefly on the NSF decision in 1997 to adopt a “Broader Impacts” criterion in its merit review of proposals. This criterion is intended to expand NSF review beyond intellectual merit and asks applicants to address how research projects and findings will contribute to the public good. There are many ways to satisfy this criterion, and they need not include explicit attention to or examination of the ethical dimensions of the proposed work and its results. A good example would be results that contribute economic benefits that accrue to the few while setting aside equity considerations. Another straightforward example is the contribution of research to graduate education in STEM. I shall set aside further consideration of this NSF effort as outside the scope of this chapter.

In 1986, the ethics program almost vanished from the NSF budget. It remained because of concerted public effort on the part of scientists and engineers and through testimony in Congress from leaders in the American Association for the Advancement of Science (AAAS). This outcry resulted in the program continuing as a Foundation-wide responsibility. Managerially very difficult, this required me to develop many close connections with program managers throughout the Foundation. Later attempts at collaboration benefited from some of these previously established relationships. In an agency committed to support for cutting-edge research and associated innovation, it was natural to consider their philosophical and ethical implications and to craft program announcements that encouraged those considerations.

One of the most successful collaborative efforts resulted from the interest of NSF engineering program officers in the ethical and social implications of nanoscience, engineering, and technology. The swirl of public interest in potential safety issues surrounding the development of nanotechnology also bolstered NSF interest in responding to those concerns. A special competition resulted in support for several centers focusing on nanotechnology in society that began in 2005.

The ethics program and the concerns of my colleagues had a strong influence on my own research interests. My research expanded from a focus on issues of informed voluntary consent to emphasize ethical questions in the relationships between science, technology, and society, particularly in the areas of agriculture, engineering, risk, and safety (Hollander 1986, 1994). This involved examination and analysis of science news and of cases that scientists and engineers reported to me. I was also able to provide overviews for a broad audience of such topics as environmental risk or mentoring (Hollander 1997, 2001).

What has led to the survival of ethics at NSF, beyond serendipity? A key factor is the increased societal emphasis on, and recognition of, the ethical and



social dimensions associated with STEM. This created receptivity to the development of ethics activities among many NSF program officers, and an interest in discussing ideas from current events. A number of well-respected scientists and engineers among the ethics program panelists were willing to make “brown bag lunch” presentations at panel meetings, and this also helped raise the program visibility and acceptance. On the other hand, some NSF program officers and upper management officials thought agency resources would be better spent directly on scientific and engineering infrastructure and research. The struggle between these two points of view continues, although media attention to issues about good scientific practice has persuaded NSF management of the need for sensitivity to public concerns about science.

Turning points within the agency came with my outreach to several NSF science and engineering and science and engineering education programs. This outreach resulted in agreements across NSF directorates to consider supporting ethics activities in the Research Experiences for Undergraduate program, which began in the early 1990s, and then establishment of the Foundation-wide Ethics Education for Scientists and Engineers which began in 2005 and continues as the CCE-STEM program today. A number of NSF programs now include ethics as a component of their solicitations for proposals, including the flagship program for interdisciplinary graduate science and engineering education which began in 1998 (TERC 2018).

Recognizing the importance of interdisciplinary and public communication led me to develop a strong connection with the AAAS and to put together interdisciplinary sessions at the AAAS annual meeting about ethics and STEM subjects of broad public interest throughout the 1980s and 1990s. NSF ethics program support for research and educational projects examining issues of risk and STEM provided numerous topics of interest to AAAS and promoted the recognition of contextual as well as constitutive values that are part of science and engineering. Constitutive values are epistemological values, such as concern to minimize sources of bias or to recognize contributions appropriately. Contextual values are societal values such as safety or consent that may not or cannot be settled by epistemological choices. Both types of values play crucial yet contested roles in judgments about risk management (Mayo and Hollander 1991).

AAAS Section X, Societal Impacts of Science and Engineering, sponsors science, technology, and society sessions each year, and most of the STEM press attends the meeting. The AAAS connection was invaluable when the NSF management scheduled the ethics program for termination in 1986. AAAS helped to lead a protest to members of Congress that involved the program’s supporters, including many scientists and engineers, who persuaded Congress to insist that NSF continue supporting ethics (Hollander 2015).

When NSF management reconsolidated ethics activity in 1994, these contacts remained useful in developing new program connections. I began working with NSF program officers to develop ethics components as part of



and in conjunction with their programs—particularly the Foundation-wide Research Experiences for Undergraduates (REU) program and the Nanotechnology initiative. In the former case, the ethics program offered funds for REU programs that wanted to hold ethics activities, which gave the scientists and engineers who led these programs an incentive that more than a few accepted. For nanotechnology, the funds came from a special legislatively mandated nanoscience and engineering initiative and helped to provide support to historians and philosophers of science, engineering, and technology as well as to STS scholars interested in studying connections between emerging technologies, ethics, and society. This support allowed new collaborations with nanoscience and technology researchers to evolve and gave these scholars critical funding for research.

I enjoyed creating connections between STS and ethics scholars and the scientists and engineers who could explain the emerging innovations in their fields. Often, this took no more than encouraging people to discuss their research with each other, at meetings or in phone calls or visits. Working together, they could identify the particular ethical and social questions that would benefit from investigation. Enjoying these connections is an important, maybe crucial, component to doing an effective job in this field, and is especially beneficial since ethics and STEM is not a field with just one or a clear academic pathway.

The cultivation of connections seems to me critical, and an area where I should have placed greater emphasis. Philosophers seem able to recognize intellectual connections, so that is a boost to promoting the field of science and engineering ethics. Organizational connections that can encourage support for science and engineering ethics research is another story. At NSF, which is a relatively open organization, much can happen via development of “bottom up” connections between program officers. However, creating more support in upper management might have been possible, had I thought more carefully and solicited help from some panelists and committee members.

It may be wise to add a cautionary note here. The philosophical and empirical questions of who owns or is in charge of the research field of science and engineering ethics and of what the implications are of that control are worth examining and likely to benefit from philosophical as well as empirical attention. This is an ongoing struggle within organizations, whose members and components are at least sometimes not monolithic. The battle for continued support for ethics at NSF is one instance that demonstrates that truth. I hope my work at NSF helped to identify ways in which the ethics program could flourish. Additionally, it is important that individual scientists and engineers as well as their professional organizations and employers exercise the authority and accept responsibility for the ethical aspects of their work. This can only happen if they have a say in the priorities for their attention, which is likely to require consideration and negotiation from philosophers about what is philosophically interesting. For instance, the ethics of publication credit may create more



interest among scientists than philosophers, but addressing that issue may be one component in a broad consideration of the role of expertise in policymaking.

After being elected to several offices in a number of professional associations, I promoted the development of an emphasis on science and engineering ethics at AAAS, the Association for Practical and Professional Ethics (APPE), and the Society for Social Studies of Science (4S). One arena that I did not focus on, but that is perhaps now ripe for exploration, is the potential for more coordination and program development with organizations and research programs in biomedical ethics. For many years, biomedical and research integrity researchers have congregated at world conferences on research integrity. Initially, much of the U.S. support for these efforts came from the federal agencies that fund medical and health-related research. The World Conferences on Research Integrity are now a private non-profit foundation with a much broader purview (<https://wcrif.org>), and it may be time to explore the value that might be added by giving that broader orientation more visibility. Similarly, now might be an appropriate time for federal agencies to issue a joint call for proposals focusing on research integrity that cross all disciplinary boundaries.

## Afterlife

During the period 2007–2017 I was employed part-time at the National Academy of Engineering (NAE) to help develop new ethics programs in the NAE Center for Engineering Ethics and Society (CEES).<sup>1</sup> The NAE is part of NASEM. As previously noted, NASEM is a federally chartered non-profit honorary membership organization of scientists and engineers who provide advice to federal agencies, organizations, and the public about technical dimensions within policy-related issues.

This opportunity reinforces my emphasis on serendipity—perhaps it might be called prepared serendipity. The president of the NAE at the time I joined the agency was computer scientist and engineer William A. Wulf, a strong voice for the relevance of ethics in engineering—particularly macro-ethics. While this term has not received a precise definition, it is juxtaposed to micro-ethics. Micro-ethics is the emphasis on ethical issues and choices for individuals, while macro-ethics are those issues that need to be addressed at a societal level. For instance, in engineering, offering or taking a bribe is unethical. Reducing the incentives for bribes is an issue that needs to be addressed at a different level (Herkert 2004).

Wulf emphasized the large-scale ethical issues that he saw as intrinsic to twenty-first-century engineering practice, which involves both complexity and uncertainty, and he set in motion efforts to develop and fund programs at NAE that could address such issues. One of his earliest efforts involved a 2003 conference in Washington, DC, focusing on complex emerging technologies and associated ethical issues (NAE 2004). This conference drew in philosophers,



STS scholars, and scientists and engineers. The organizers included the philosophers Caroline Whitbeck and Deborah Johnson, two founding figures in the field of science and engineering ethics whose work often involved collaborations with scientists and engineers. Building on her connection with Wulf, Whitbeck transferred the resource that she founded—the Online Ethics Center (OEC)—to the NAE. The NAE CEES manages it still at [www.onlineethics.org](http://www.onlineethics.org) and has expanded its content and reach with support from the NSF.

At NSF, my work required consultation and collaboration with a wide range of scientists and engineers, in the service of deciding which proposals for science and engineering ethics research and education to support. Advice almost always involved an interdisciplinary panel, and deciding which proposals to recommend for support based on that advice. Similarly, all programs and activities at the National Academies require the participation of members, who usually chair the groups tasked with oversight or implementation of the efforts. Focused as they are on scientific and technical issues of policy relevance, the bodies are always interdisciplinary and representative of a wide variety of interests. Based on recommendations from program officers, the Presidents of each of the three Academies approve the selection of the chairs and committee members, who oversee project directions and activities. Support for the activities comes from numerous federal agencies and other sources. Thus my NASEM work was orthogonal to that in my previous job—garnering support for activities rather than providing it.

Both jobs involved fieldwork to which traditional philosophy makes a modest contribution. My most distinctive contribution may have been my work to connect philosophical ethics with STS. This work emphasized the contribution of both constitutive and contextual values to science and engineering research and practice and the ethical components they include. The ways in which these connections arise—and matter—needs close textual analysis or fieldwork in the arenas in which the scientific and engineering activity is taking place. At NSF, my job enabled me to encourage proposals and support projects in which this work could occur. At NAE, with support from advisors, we were able to continue this work.

CEES has an interdisciplinary and inclusive advisory group that helps to set its directions and oversee and evaluate its activities as well as those of the OEC (CEES 2018). As a condition of a NSF award, the OEC has a similar group focusing specifically on that effort. The merits of these kinds of approaches have received relatively little study, although both NSF and NASEM recognize that program managers would benefit if there were better efforts at both training and studying what makes for effective research or committee management.

While acknowledging this need, the merit of NSF panel review and of the NASEM advisory committees have long been recognized, and at NAE these groups played an essential role in developing and participating in CEES and OEC programs. Numerous CEES activities focused on questions of social



justice involving engineers and engineering. Projects often required collaborations with partners at colleges and universities and the engagement of natural and physical scientists, engineers, social scientists, and philosophers. Leaders in public and private organizations and local government were also involved.

I note here two CEES projects that typified these approaches. The first, an energy ethics project, took a problem-oriented, real-world approach to ethics education and defined energy ethics as requiring consideration of technical and social feasibility as well as the ethical desirability of energy choices. It addressed issues of individual and collective responsibility and the ethical merits of these choices, asking whether they are ethically permissible, recommended, and required, or should be forbidden. My philosophical training was brought to bear in delineating these project themes. The project included new research and educational activities on energy ethics that involved graduate students in interdisciplinary research programs. Activities included seminars, workshops, a week-long institute, a video contest, and outreach and engagement efforts.<sup>2</sup>

Besides traditional publications in the form of articles and reports, several projects, including one on Climate, Engineered Systems, and Society, developed video products that might reach a broad audience. For this project, two videos are now available on the home page of the OEC. The videos—“Climate and Infrastructure I: Why Does It Matter?” and “Climate and Infrastructure II: Who Should Address It?”—involve participants from the project’s capstone conference in 2013.<sup>3</sup> Experts from a wide range of disciplines as well as local citizen leaders address the need for and ways to develop systems that can address climate change challenges.

I believe these efforts would have benefited from my paying more attention to engaging the NAE leadership and governing bodies in their promotion and support. Once Wulf’s tenure as NAE president was over, the next presidents did not have the same connection with the NAE ethics program. Although supportive, their attention was on other NAE efforts and priorities. The 2020 incoming NAE president, John L. Anderson, from the Illinois Institute of Technology, has a strong history of involvement with engineering ethics education so increased attention is likely.

## Summary and Conclusions

I extract several themes and lessons from my career, which I believe have general applicability:

- Serendipity and opportunism—taking advantage of (lucky) circumstances, but also the ability to turn a sow’s ear into a silk purse, and press forward on extracurricular activities that present new and related options—is important.
- Perseverance and finding allies (forming alliances) among individuals in a variety of organizations and in fields other than philosophy is a requirement.



- Outcomes from my career might have been strengthened by more attention to alliance building—locally, nationally, and internationally—and to encouraging and drawing forth advice even when its merit may not be evident.

Looking for alliances and advice are not capabilities to which philosophical education has traditionally paid much attention, so it might be worthwhile to single these attributes out for a bit of reflection. In fact, neither education nor employment has emphasized the need to develop these attributes much beyond a manner that focuses on self-interest. The priorities of individuals and organizations are generally narrowly focused. Thus, in both organizations in which I worked, the priority was on benefits to STEM (which is a step beyond self-interest in itself). Creating links to ethics needs to be placed in that context to have a place on the agenda. Making links to for-profit organizations was not easy even when just limited to connections to STEM, much less when making the additional ethics connection. Identifying exactly those issues and circumstances where alliances and advice might prove fruitful is not easy. Below, I describe several occasions when those connections happened.

Fieldwork in philosophy can involve the identification and analysis of individual and organizational behaviors as well as contributions in the non-philosophical literature. It can also identify primarily ideological commitments and ethical predispositions, as well as ontological and epistemological assumptions. Doing fieldwork thus makes possible certain conceptual and practical discoveries in philosophy. On the conceptual side, the relatively new field of STS plays an important bridging role for philosophers who are interested in ethics and STEM, as its intellectual focuses can be congenial to philosophy while its empiricism provides useful grounding.

This leads to the practical question of whether and how to encourage connections between the professional societies that have members from the field of philosophy. The Society for Social Studies of Science (4S), Philosophy of Science Association (PSA), Society for the History of Technology (SHOT), History of Science Society (HSS), Association for Practical and Professional Ethics (APPE), and American Philosophical Association (APA) could all benefit their members and themselves by finding ways to cross-pollinate through an emphasis on empirical and conceptual work on ethics and STEM. I have belonged to special interest groups in several of these organizations where issues of ethics and STEM were prominently discussed. The APA and PSA might consider having one of their publications devote an issue or a section to work that members have done on these issues, which would alert their members to an area they might not otherwise pay attention to. Several of the social and behavioral science societies have relevant divisions which could reward attempts at connection. While relatively few philosophers seem to be engaged in ethics and STEM, this may change with the turn to practical, empirical philosophy.



Making connections to other societies such as the American Society for Engineering Education (ASEE) and the AAAS could also be beneficial in the long term. Unfortunately, recognition of the need for, or the development of opportunities for, connections is mostly lacking or is framed very narrowly, as is the funding to make these connections happen.

Among practical efforts, professional societies have initiated joint activities to stimulate attention to ethics and STEM. For instance, in 2017 the NAE, the Institute of Electrical and Electronic Engineers (IEEE), and the American Association of Engineering Societies (AAES) sponsored a workshop on the ethics of artificial intelligence (NAE 2017). The National Academies Government–Industry–University Roundtable sponsored several workshops on ethical aspects of scientific practice, including international aspects (NRC 2014; NAS, NAE, and IOM 2011). NASEM has long paid attention to ethics in graduate education in the U.S. and, more recently, in an international effort (IAP 2016). Additional efforts, particularly focusing on scientific misconduct and good practice, may be on the horizon. Conceptual discoveries involving the examination of value dimensions in STEM such as the complexities of risk assessment and risk management, have considerable intellectual strength; results from this work require connections between philosophy and science and engineering and the promotion of attention to ethics in STEM education. Public attention stimulated many of these efforts. Not surprisingly, there is interaction between the stimulus of public concern and the interest of scientists and engineers in improving research practice so as to address that concern.

Philosophers employed outside academe do have opportunities to benefit from field philosophy. My opportunities took shape first during a break from my graduate studies, next in employment in a federal agency, and finally as staff of an honorary membership organization of scientists and engineers. Exposure to field sites provided experiences that tested the merits of approaches and findings in the philosophical literature. NSF program support fostered the beginnings of a community of integrated and interdisciplinary research on topics of ethics in science and engineering. The NAE provides a focal point for efforts in engineering ethics to continue. Both NSF and NAE activities promote empirical approaches, for which field philosophy is a natural fit. However, it is not clear that philosophers or their professional associations have given enough attention to helping their members become engaged in this or related efforts to create a strong and vibrant field of science and engineering ethics.

The history of development of the field of science and engineering ethics indicates that scientific disciplines have emphasized ethical issues that arise in the conduct of scientific research (publication ethics, for instance) while engineers have emphasized issues arising in society (emissions cheating, for example). These differences in priorities reflect differences in the history and practice of these professions and in the perceptions of scientists and engineers about their social responsibilities (Kline 2013). Overcoming these differences will require



the development and continuation of alliances and collaborations wherever possible.

While a focus on ethics in the conduct of science and engineering may involve an emphasis on what individuals should do, it often must include an examination of ethical shortcomings in scientific and engineering approaches that will take organizational attention to resolve. To push further, there is a long history of difficulty in persuading powerful interests in or affiliated with science and engineering to support ethics programs. There are various reasons for this, not least of which is a historical acceptance of science and engineering as wealth-building rather than equity-building endeavors. Those directing and implementing ethics activities in institutions such as the NSF and the NASEM are in a sensitive position, since those agencies and their leadership often justify support for their missions as promoting wealth building, while they recognize the need to address equity considerations.

One approach to addressing this problem is to recognize the need to improve science and engineering by overcoming shortcomings internal to these fields. For instance, lack of attention to broad inclusion in research populations may weaken the veracity and applicability of the findings. Another kind of ethics question arises about use of individual information from online sources, and this too challenges the ubiquitous societal commitment to innovation as a social or utilitarian good. Philosophy, working with a wide range of disciplines and social interests, can have a useful role in illuminating questions, devising methods to address them, evaluating results, and pressing ahead. Many scientists, including social and behavioral scientists and engineers, identify the early warning signals of these deficiencies and are pleased to cooperate with philosophers in considering their implications and ways to overcome them.

Good governance is necessary for identifying and resolving ethical and philosophical issues in science and engineering. Appropriate attention, oversight, and regulation from governmental agencies or leaders of social movements can promote positive effects of innovation and prevent or mitigate negative ones, while helping to assure equitable outcomes, or even outcomes that can overcome historical problems that arise from inattention to equity issues. There are opportunities for professional societies to foster these efforts.

Addressing these issues demands action from numerous individuals, groups, and organizations. One empirical orientation in philosophical work recognizes the tension between how things are and how one might desire them to be, and calls for engagement with activities that can promote movement from what is to what is worthy of being desired. It recognizes that the “we” in professional effort or the “we” in organizational affiliation is not the same as the “we” in humanity, and that there are going to be differences and conflicts within and between the various “wes.” How to move in the desired direction may be difficult to discern, much less actuate. Nonetheless, there are numerous ways to define and examine science and engineering ethics problems and those



examinations can benefit from interdisciplinary approaches that incorporate empirical and conceptual work. I hope that stronger collaborations between the “wes” will have the desired impact.

## Notes

- 1 The CEES home page at the NAE identifies current ethics efforts: [www.nae.edu/26187.aspx](http://www.nae.edu/26187.aspx). It provides information about the energy ethics and climate change projects at [www.nae.edu/Activities/Projects/CEES/57196/EnergyEthics.aspx](http://www.nae.edu/Activities/Projects/CEES/57196/EnergyEthics.aspx) and [www.nae.edu/Activities/Projects/CEES/57196/35146.aspx](http://www.nae.edu/Activities/Projects/CEES/57196/35146.aspx).
- 2 The results from this project are available at [www.onlineethics.org/Topics/Enviro/Energy.aspx](http://www.onlineethics.org/Topics/Enviro/Energy.aspx).
- 3 The featured videos “Climate Change and Infrastructure I” and “Climate Change and Infrastructure II” can be accessed from the OEC home page: [www.onlineethics.org](http://www.onlineethics.org).

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# 14

## A PHILOSOPHER'S FIELD GUIDE TO TALKING WITH ENGINEERS

*Don Howard*

### Introduction

A happy fact about philosophical life in North America today is that engagement with non-philosophical audiences is more common than it was during the latter half of the twentieth century, or even just a few years ago. Sometimes that audience is the general public; sometimes it is colleagues in other disciplines, including technical, scientific, and engineering fields; and sometimes it is policymakers. Such broad engagement is still not valued widely enough by all of our philosophy colleagues, especially in the context of hiring, tenure, and promotion decisions or in the reputational rankings of individuals and departments. Nonetheless, one sees ever more evidence of a change in attitudes, enough to embolden one to think that the next generation will find such interests and efforts more generously encouraged and supported. Those of us who think this broader engagement is important for the flourishing of philosophy itself, as well as for those non-philosophers whose work and well-being can be enhanced by expanded interactions with philosophers, have a responsibility to nudge our colleagues toward further reflection on the value of such activities and on the institutional impediments standing in their way.

It would be a mistake, however, to suggest that the only impediments to such outreach and engagement are institutional. Some of the biggest obstacles lie within the normal intellectual formation of individual philosophers, shaped by their education and the intellectual culture that sustains their work as philosophers. Self-reflection is as important as reflection on the structure and functioning of the institutions of professional philosophy.

This chapter is an exercise in such self-reflection. It starts with a memoir of my decades-long work with colleagues in technical fields focusing mainly on



questions of ethics and policy in science and engineering. It concludes with a discussion of lessons learned along the way that might prove to be of help to my younger colleagues.

## My Work with Engineers

When I was finishing my graduate work in philosophy and preparing for the challenge of a very bad job market for philosophers in the mid-1970s, I had what I quickly learned was the crazy ambition of building my career around two areas of specialization: (1) the philosophical foundations of modern physics and (2) science and technology ethics and policy. That intention was a sincere reflection of what, at the time, most engaged my attention as a philosopher, and the second of those two intended specializations also reflected my having been profoundly shaped by the political struggles of the 1960s and 1970s, prominent among these being the birth of the environmental movement. I vividly remember the first Earth Day, April 22, 1970, which I and fellow students at Michigan State University celebrated with a voluntary clean-up of a garbage-strewn empty lot near my apartment. It was a small gesture, but it sprang from a heartfelt commitment to put our bodies and our brains to use to fix a broken world, as epitomized by the remarkable phenomenon of the Cuyahoga River in Cleveland, Ohio catching fire on June 22, 1969.

During my graduate studies, while working hard on such topics as Bell's theorem and quantum entanglement or my dissertation project on Niels Bohr's complementarity interpretation of quantum mechanics, I also read widely in the emerging literature on the environmental crisis and the role of technology unfettered by ethical and philosophical reflection in producing that crisis. I recall being especially impressed by the writings of the biologist, Barry Commoner, and the philosopher, Jacques Ellul. To a lesser extent, the work of Max Horkheimer, Herbert Marcuse, and Jürgen Habermas on technology and instrumental reason shaped my thinking; however, I thought then (and still do) that the critical theorists' picture of twentieth-century logical empiricist philosophy of science was an ill-informed and unsympathetic caricature of an intellectual movement whose critical and politically progressive perspective on science was, in fact, superior to that of the Frankfurt School (see Howard 2003). One measure of the seriousness of my desire to make science and technology ethics and policy a centerpiece of my new career is the fact that my very first published paper was not in philosophy of physics but in environmental ethics, indeed in the inaugural volume of a new journal, *Environmental Ethics* (Howard 1979).

That wanting to make myself a specialist in science and technology ethics and policy was, at the time, a crazy ambition was made all too clear when, for the first and only time, I gave a talk based on work that I had been doing on nuclear energy policy and reactor safety and design. It was not that the philosophers were hostile to the argument or uninterested in the issue. But their



reaction to the talk strongly suggested that philosophers at that time did not, and probably could not, appreciate the work that I was doing as genuinely philosophical. In fairness, my work did not fit any of the then established categories in professional philosophy. Philosophy of technology was in its infancy and mainly pursued in philosophy departments with a pronounced Continental character, not “mainstream” analytic departments. Environmental philosophy had no presence in the discipline. Even applied ethics was only just beginning to establish itself. So I learned my lesson, retrenched, and refocused exclusively on my work on the philosophy of physics, a well-established specialization.

My interest in science and technology ethics and policy did not disappear, but after landing my first job at the University of Kentucky in 1978, I pursued that interest exclusively in the classroom, not as part of my research portfolio. Most noteworthy, and personally as well as intellectually gratifying, was a new course that I developed on “Modern Physics and Moral Responsibility.” The aim of the course was to help students, especially science and engineering students, develop the conceptual tools they would need to confront the ethical challenges that would arise in their careers, whatever those might be. Being trained in physics, I chose to do this by using the history of nuclear weapons and the moral struggles of the bomb physics community from the late 1930s through to the late 1970s as affording a theoretical and narrative framework for thinking about other moral struggles. The course was a success, and I offered it as often as my other teaching responsibilities would permit.

Over the next 30 years, my interest in the connection between philosophy, on the one hand, and politics, ethics, and social impacts, on the other, found expression in some of my research on the history of the philosophy of science in the twentieth century. Most relevant was my work on the curious way in which left-leaning, socially-engaged, logical empiricist philosophy of science of the 1920s and 1930s met a differently but comparably left-leaning, socially-engaged American pragmatist theory of science in the late 1930s, and then evolved into the politically disengaged, more purely formalist philosophy of science that defined the field for decades after World War II (Howard 2003). My argument explored how a twenty-first-century philosophy of science had to embrace again that socially and politically engaged part of its past (Howard 2009).

With my move to Notre Dame in 1997, the context for my work changed in a crucial way, because Notre Dame’s History and Philosophy of Science (HPS) Ph.D. program, the directorship of which I assumed and held until 2011, lived administratively as part of the John J. Reilly Center for Science, Technology, and Values (STV), which was established in 1985. The HPS program was also closely connected to the philosophy and history departments, but its situation in a center otherwise focused on science, technology, and values afforded opportunities for both faculty and graduate students that were not so easily



available to HPS scholars in other universities. For example, these administrative arrangements made it possible for our HPS graduate students to gain teaching experience in the core course on science, technology and values for the Reilly Center's STV undergraduate minor program. That classroom experience awakened in some of our students research interests in the ethics of science and technology. A telling example is the experience of one of my Ph.D. students, Justin Biddle, who came to Notre Dame to do philosophy of physics but wound up writing a dissertation on the epistemic consequences of the social and institutional embedding of science (Biddle 2006). He is now a tenured associate professor in the School of Public Policy at Georgia Tech and his work has explored the philosophical aspects of a wide range of science and technology policy issues (see, for example, Biddle 2017).

My opportunities for engagement not just with issues in the ethics of science and technology, along with science and technology policy, but also for direct collaboration with science and engineering colleagues expanded even further when, from 2011 until 2014, I took a turn at directing the Reilly Center itself. That shift of responsibility coincided with an administrative decision to support a significant enhancement of the Center's capacity for cross-college, interdisciplinary initiatives. Specific new partnerships grew with engineering colleagues in Notre Dame's nanotechnology center, the Energy Center, the Wireless Institute, the Department of Computer Science and Engineering, and more. Finding myself now in regular interaction with my technical colleagues, I decided to revive that old ambition to do research work in science and technology ethics and policy, and that now represents perhaps 40 percent of my research portfolio.

Today, I am probably unusual among my philosophy colleagues in the frequency and substance of my collaborations with engineers. These are a few examples.

## ***Robotics***

In 2014, I joined with my former Notre Dame computer engineering and roboticist colleague, Laurel Riek (now at University of California San Diego) to co-author the first code of ethics for the Human–Robot Interactions (HRI) profession (Riek and Howard 2014). We first presented this paper at the WeRobot 2014 conference in Coral Gables, Florida. Never in my 40-year career has a paper that I have written generated so much intense interest. Calls and emails from reporters poured in, and Riek and I were interviewed for a number of podcasts, radio broadcasts, blogs, and both print and online news and magazine articles (see, for example, CBC Radio 2014; Moon 2014; NBC News 2014). Ten months later we convened a day-long workshop on the same topic at the 2015 HRI annual conference in Portland, Oregon, held under the auspices of Institute of Electrical and Electronics Engineers (IEEE), which Riek



and I co-organized along with mechanical engineer and roboticist, Ajung Moon (now CEO and Technology Analyst at Generation R Consulting) and law professors Woodrow Hartzog (Northeastern University) and Ryan Calo (University of Washington). The workshop was a huge success, drawing an audience of 80, most of them robotics engineers (see Riek et al. 2015).

### ***Weapons research and development***

I have a long-running collaboration with Major General Robert Latiff (US Air Force, retired), who holds a Ph.D. in materials engineering and had a long career as a developer of weapons, surveillance, and command and control communications technologies for the Department of Defense and other government agencies. Our collaboration began with the development of a successful undergraduate course at Notre Dame on the “Ethics of Emerging Weapons Technology,” which draws mainly engineering students, and the collaboration now extends to a number of other projects. Most rewarding, perhaps, was our work together under contract with the National Academy of Sciences to build a set of teaching modules based on the 2014 Defense Advanced Research Projects Agency (DARPA)-funded, National Research Council and National Academy of Engineering report *Emerging and Readily Available Technologies and National Security: A Framework for Addressing Ethical, Legal, and Societal Issues* (Chameau et al. 2014). These modules are designed to be used as part of in-service training in weapons research and development labs and have been constructed in such a way that they can be led by engineers themselves.

I also co-organized with General Latiff a 2014 conference at Notre Dame, “Ahead of The Curve: Anticipating Ethical, Legal, and Societal Issues Posed by Emerging Weapons Technologies,” designed to showcase that report. Among the featured speakers was the then Deputy Director (now Director) of DARPA, Dr. Steven Walker. It was DARPA that had initiated and funded the study that led to the report, because the agency recognized the need for government agencies and private corporations involved in weapons research and development to integrate into their work a more systematic and sophisticated engagement with ethical considerations (see Howard 2014).

General Latiff’s personal story as an engineer and weapons developer is a compelling one. A few years after his retirement he found himself in conversation with other retired military officers and intelligence officials who shared his concern about the lack of sufficient ethical input in weapons and intelligence research and development. Eventually he approached his alma mater, thinking that if any major institution would care about the problem it would be Notre Dame. Latiff was referred to the Reilly Center, and that, as Rick says to Captain Renault in *Casablanca*, was the beginning of a beautiful friendship. The sincerity and intensity of Latiff’s worries about the ethics of new weapons technologies is well expressed in his recent book, *Future War* (Latiff



2017), where he expresses a number of specific concerns, such as his unhappiness with the rush to develop and deploy ever more autonomous weapons systems.

### ***Automotive Engineering, AI, and Self-Driving Vehicles***

In August 2017 I was an invited presenter at an National Science Foundation (NSF)-funded, one-day workshop at Stanford University on “Collaborative Research with Ethical, Legal and Social Implications.” The workshop was co-organized by the philosophers Shannon Vallor, from Santa Clara University, and Daniel Hicks (my former Ph.D. student), currently at UC Merced, and Stanford mechanical and automotive engineer Christian Gerdes. The focus was on collaboration between engineers, lawyers, and technology ethicists in addressing ethical challenges with self-driving vehicles.<sup>1</sup> My understanding is that Hicks and Gerdes first conceived the idea for this workshop when Hicks was an American Association for the Advancement of Science (AAAS) Science Policy Fellow at the National Science Foundation working on ethics and self-driving vehicles, and Gerdes was serving as the Chief Innovation Officer at the US Department of Transportation. While the workshop yielded no published record of the talks and discussions, it was nonetheless a richly rewarding experience for those who participated; it made clear that the prospects for further such collaboration between philosophers and engineers were bright, as evidenced by some of the work being done at Stanford on integrating ethics explicitly into autonomous vehicle control systems (see, for example, Thornton et al. 2017).

The above is but a sample of my collaborations with engineers. Each has been professionally rewarding and personally satisfying. It is always stimulating to have the excuse to study technical literature that one is new to. All of the above-mentioned colleagues and collaborators have welcomed my input, seeing such work with a philosopher to be comparably enhancing to their own research and teaching. The relationships that we have built are based on mutual respect, shared interests, and a common commitment to making the world a better place. Along the way, I have learned some important lessons about how philosophers can collaborate with engineers.

### **Principles: How to Work with Engineers**

Courtesy, tact, sympathetic engagement, and intellectual modesty all go a long way when collaborating with anyone, including engineers. But experience has taught me that there are several more specific principles to bear in mind when setting out to work with our engineering colleagues. Here are a few.



### ***Do Not Condescend***

Do not enter the relationship with the assumption that, as a philosopher, one is more attuned to the social and ethical implications of the work in technology. Do not assume that, simply because the engineer is an engineer, he or she is unconcerned with or blind to ethical issues, or that he or she lacks the conceptual resources to engage with social and ethical implications in a sophisticated manner. As philosophers we are, for the most part, better educated than our engineering colleagues about metaethics and normative ethics. But my being able to explain to my undergraduates why, for G. E. Moore, “good” is a non-natural predicate, does not, by itself, make me better able to articulate with nuance and detail the devastating effects of anthropogenic climate change on vulnerable peoples in low-lying, coastal areas in less developed parts of the world.

### ***It's a Two-Way Street***

If you expect the engineer to learn the ethics of care, the metaphysics of the ontology of technoscientific objects, the philosophy and sociology of science in an age of uncertainty, and the epistemology of modeling in the climate sciences, then you have to be prepared to learn the engineering. And, without understanding the engineering, the philosopher cannot understand the way in which the ethics, the ontology, the philosophy of science, or the epistemology works in a given, technical setting. What is required of the philosopher is not, of course, Ph.D. level expertise in the relevant engineering disciplines. But a lot more is required than just a sophisticated, lay person's passing familiarity with the technologies as described in *Wired*, *Gizmodo*, *The Verge*, or even the *MIT Technology Review*. How much expertise one must develop, and of what kind, depends, of course, on the specific problems one is engaging with. But, in general, what is required is something more like what Collins and Evans (2008) term “interactional expertise.” Someone possessing interactional expertise is not expected to be capable of making original research contributions in the technical field in question but is expected to know the basic concepts and theories, to understand experimental techniques and design and manufacturing tools. One should be able to read and understand the current literature and to engage in intelligent and informed conversation with technical partners.

### ***Do Not Model Ethics as a Detachable Form of Philosophical Expertise***

If ethics is the focus of a collaboration with engineering colleagues, then do not make the mistake of treating ethics as a detachable form of specialist, philosophical expertise. Of course, most philosophers are better trained than engineers in metaethics and normative ethics. But while ethical theory is helpful by way of



providing frameworks and tools for ethical analysis and reflection, such theory, alone, does not suffice for assessing the ethical impacts of novel technologies. Ethics on the ground, as it were, is something very different from ethics in the philosophy classroom. One does not solve hard problems about the ethics of self-driving vehicles, facial recognition systems, or predictive policing algorithms by parachuting in an ethics specialist who dispenses a few pearls of ethical wisdom and then moves on to the next consulting contract.

In this respect, ethics is not like mechanics or thermodynamics or nuclear engineering. Such a view of applied ethics has, unfortunately, been encouraged by the medical ethics model, where the philosophically trained ethicist is often included in grand rounds, along with the oncologist, the radiologist, and pharmacist. I think this is the wrong model in medicine. But it is especially so in an engineering setting, where ethics must take the form of embedded and distributed expertise, more the domain of the engineer than the philosopher. The philosopher has a role to play in helping to construct cultures of ethical engagement and sophistication in private technology corporations, government agencies, and regulatory bodies (see Howard 2019). But the most important measure of the philosopher's success in nurturing the growth of genuine, self-sustaining, and self-reproducing ethical expertise within technical communities is the eventual dispensability of the philosopher in those communities.

### ***Be Prepared to Learn Something New about Ethics from the Engineers***

Philosophers do not know everything about ethics. Our technical colleagues have a long history of engaging with ethical challenges, from the nuclear physicists and engineers who confronted the moral challenge of atomic weapons in World War II and the petro-chemical engineers who knew a lot about the environmental consequences of a hydrocarbon-based energy economy long before liberal environmentalists awoke to the problem, to the programmers, systems analysts, and computer engineers at Google whose recent open revolt led to the company withdrawing from the competition for the Department of Defense's new Joint Enterprise Defense Infrastructure (JEDI) initiative. Not all of those people made commendable moral choices, but that they were confronting serious moral questions was clear to most. In some cases they evinced exemplary moral leadership, as when, in the Spring of 1945, many of the staff at the Manhattan Project's "Metallurgical Lab" at the University of Chicago drafted what is now known as the "Franck Report." In this report they advanced powerful arguments against the use of the atomic bomb in a surprise attack on a civilian target and clearly asserted the principle that their specialist technical expertise entailed a responsibility to act politically and morally, as opposed to confining their actions to merely technical aspects of nuclear weapons (Franck and Rabinowitch 1945; Mian 2015).



### ***Understand that Engineers are Cultural Optimists***

Most of us misremember the core message in C. P. Snow's classic 1959 Rede lecture, "The Two Cultures." Yes, Snow was concerned with the obstacles to communication between humanists, on the one hand, and scientists and engineers, on the other. But he was equally, or, on my reading, more concerned about making a very different point, which is that the engineer is a cultural optimist while the humanist is a cultural pessimist. The humanist is so overwhelmed by the tragic nature of the human condition as to be rendered clueless and powerless in the face of moral challenges. If we are all fallen beings and the human condition is, essentially, a tragic one, then, try as we might, the struggle will only end in failure and still greater suffering.

The engineer, by contrast, just wants to solve the problem and make things better. Both are naive. The humanist discounts the evidence of moral progress. The engineer, according to Snow, discounts the obstacles to progress. Still, the fact remains that the engineer just wants to make things better and is willing to risk moral failure as the price to be paid for trying to make the world a better place. That this was the point that Snow mainly wanted to stress is made more clear in the follow-on essay, "A Second Look," included in the second edition of *The Two Cultures* (Snow 1963). Here he voiced the worry that the West might well lose the Cold War, because it undervalued and underfunded technical training; meanwhile, the Soviet Union was flooding the developing world with thousands of young engineers who, fired with moral and political determination, were building schools, hospitals, water and sewer systems, highways, railways, airports, shipyards, communications infrastructure, factories, and modern farms. Snow misunderstood the trajectory that the Cold War was following, but his emphasis on the place of the engineer in international development assistance was another expression of his view that the distinguishing feature of both the temperament and the social role of the engineer was the commitment to putting engineering skills to use in the betterment of the human condition.

### ***Appreciate the Moral Impulse Inherent in the Work of All Engineers***

My work with engineers confirms Snow's point about the engineering temperament: the engineer wants to make things better and believes that, with effort and will, progress is achievable. The philosopher, seeking to collaborate with the engineer, must recognize and affirm that sentiment. This might be derided by the philosopher as a simple-minded, blind faith in technology's ability to solve any problems, even those of its own making. That might be right, up to a point, and more so for some individuals than others. But it is also well to remember that the engineer's training teaches one what things cannot



do, as well as what they can. Failure analysis is a central part of an engineer's training. Lots of engineers are keenly aware of the limits on their ability to solve problems.

This moral impulse at the heart of the engineering profession is demonstrated by the existence of Canadian and US engineering honor societies built around the engineer's moral obligations to self, to the profession, and to the larger community affected by the engineer's work (Wedel 2012). In Canada, the Corporation of the Seven Wardens was established in 1925 by prominent engineers associated with the Engineering Institute of Canada, who believed that something was needed to make a firmer commitment to ethics and the moral responsibilities of the engineer. Organized in 26 "Camps" or branches, with which all Canadian universities that grant engineering degrees are affiliated, the Corporation requires those being inducted to take an oath called "The Ritual of the Calling of the Engineer." The corresponding US society, the Order of the Engineer, was established in 1970, in direct response to the environmental crisis, but also to the campus uproar around the role of scientists and engineers doing weapons research and development at the time of the Vietnam War. Its members also swear an oath, called the "Obligation of the Order of the Engineer." Members of both the Canadian and US societies receive a plain ring as a reminder of the oath. Originally, in Canada, the ring was made of iron from a bridge that collapsed during construction causing many fatalities and injuries. Today the ring is made of stainless steel.

### ***Remember that Ethics Is Not Just a Matter of Saying "No"***

Do not make the mistake of reinforcing the worry encountered among many engineers that ethics is just a way of telling the engineer what he or she may not do. Ethics should be as much about opening up new and productive lines of research and development as it is about foreclosing ethically problematic lines of investigation. As philosophers, we have been conditioned to think that technology, per se, is a problem and that, by extension, the engineers who develop new technologies are the agents of the harm wrought by technological innovation. The history of the field of inquiry called the "philosophy of technology" goes back to the anti-technology critiques of Martin Heidegger, Max Horkheimer, Herbert Marcuse, and Jacques Ellul, among others, and, to this very day, that history shapes the dominant orientation of scholarship on technology ethics (Howard forthcoming). But history is not fate, and, as philosophers, we have the critical and analytical skills necessary to help us overcome that legacy—if only we become self-aware as the descendants of an intellectual tradition of technology critique that overemphasizes the baleful effects of technology, and undervalues technology's emancipatory potential when pursued in an appropriately reflective and critical spirit. Market forces, institutional pressures, and intellectual inertia make that a more daunting challenge. But why



would one think that putting our intellectual skills to work in the service of enhancing human flourishing would be easy, rather than hard? Let's roll up our sleeves and get to work.

### ***Let the Problems Be One's Guide***

A final piece of advice is that collaboration with our engineering colleagues works best when it arises out of a shared engagement with a specific problematic agenda (Howard 2016). As with all substantive interdisciplinary work, collaboration with engineers should not originate out of some Platonic commitment to trans-, cross-, or interdisciplinarity. The way it should work is that I find myself interested in and dedicated to thinking about geo-engineering, or human enhancement, or the exploitation of social media for hacking an election. I read everything that I can find. I realize there are technical issues that I do not really understand. I reach out to science and engineering colleagues who care about the same issues but who have command of a technical skill set that I lack. I find that they see themselves as lacking philosophical frameworks and skills of analysis and persuasion crucial for constructing social and political solutions to what are not merely technical problems. We decide to collaborate. We learn from one another. If all turns out well, we make, together, a modest contribution to the betterment of the human condition. We become friends.

### **Acknowledgments**

I am indebted to many of my engineering colleagues for their tutelage, their support, and their examples of committed and engaged research and scholarship. Major General Robert Latiff is first on the list of those to whom I owe a humble debt of gratitude, along with his friend and mine, the late John D. Reilly, who endowed Notre Dame's Reilly Center for Science, Technology, and Values and provided steady guidance to the Center from 1985 until his untimely death in 2014. But there are many more, including Peter Burns, Nitesh Chawla, Paola Crippa, Patrick Flynn, Jeffrey Kantor, Nick Laneman, Ajung Moon, Wolfgang Porod, Laurel Riek, and Steven Walker. They have all been my mentors, and, for that, I thank them.

### **Note**

1 See [https://nsf.gov/awardsearch/showAward?AWD\\_ID=1744426](https://nsf.gov/awardsearch/showAward?AWD_ID=1744426).

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# 15

## ECOTOURISM WITH A HAND-LENS

### A Field Environmental Philosophy Experience from the South of the World

*Ricardo Rozzi, María Teresa La Valle, Shaun Russell,  
Bernard Goffinet, and Francisca Massardo*

#### **1 The Biocultural Ethic Conceptual Framework**

*Earth* is not only a biophysical entity; it is also a word that influences the way we understand and relate to the biophysical reality of the planet. Scientists often forget the gravity of words and focus on the biophysical reality. Conversely, philosophers often focus on examining the language of cultural reality, ignoring the biophysical realm. Biocultural ethics unites biological and cultural realities in one conceptual framework (Rozzi, 2001). In addition, it promotes a contextual and systemic approach that shows consideration for the vast biophysical and cultural diversity found in different regions of the world.

In this chapter, we focus on a transdisciplinary endeavor launched in 1999. This long-term project advocates for a biocultural perspective at the southern end of the American continent, in the Cape Horn County of Chile. A team of philosophers, scientists, artists, members of the Yahgan indigenous community, government authorities, Navy officers, schoolteachers, and members of the local community in the world's southernmost city, Puerto Williams, created the Omora Ethnobotanical Park.<sup>1</sup> This endeavor has resulted in changes in the local sciences, arts, and humanities curricula and educational activities at all levels of formal education, as well as with tourists, members of the public, and policy-makers from inside and outside Chile.

The research, education, and conservation program at Omora Park was organized using the conceptual framework of a biocultural ethic. This ethic values biological and cultural diversity, the indissoluble links among specific habitats, the diverse co-inhabitants (human and other-than-human),<sup>2</sup> and their life habits (Rozzi et al., 2008a). This biocultural integration contrasts with the main schools of modern ethics, e.g., utilitarian ethics (Palmer, 2013) and deontological ethics



(Aguirre, 2015). These schools focus on presumed universal human habits without considering the diversity of co-inhabitants and habitats where they take place, “as if” societies and individuals, their well-being and identities, could exist in isolation from their biocultural environments. Consequently, mainstream modern ethics has been both anthropocentric and Eurocentric. This philosophical blindness to the full diversity of co-inhabitants and the complexity of their habitats promotes educational programs and development policies that drive losses of biological and cultural diversity as well as processes of biocultural homogenization and socio-environmental injustice (Rozzi, 2013).

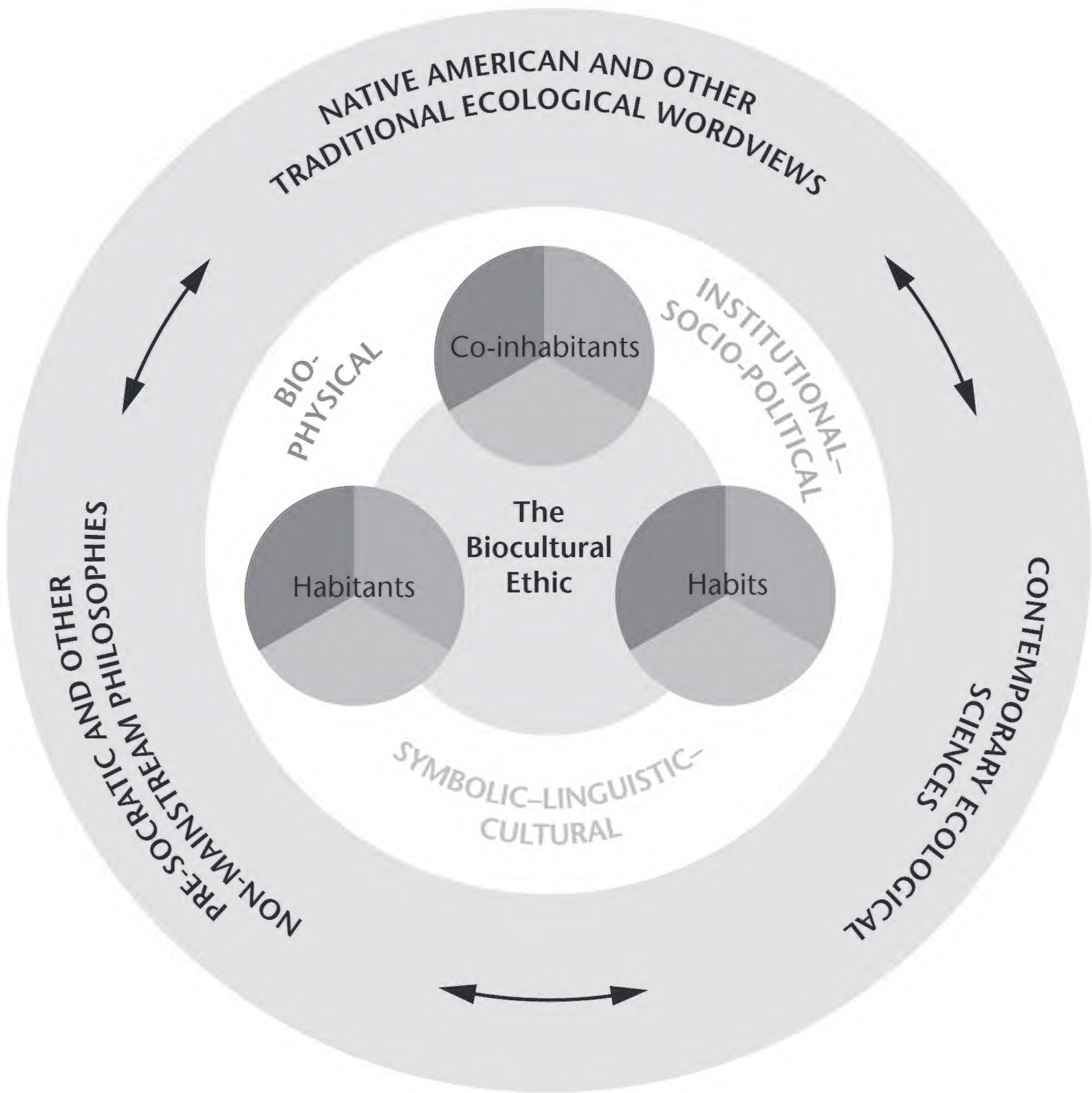
Biocultural ethics counteracts this philosophical blindness by explicitly valuing the vital links among specific *habitats*, *co-inhabitants* and their life *habits*. These “3Hs” of the biocultural ethic involve, in turn, three interrelated dimensions of socio-ecosystems: biophysical, cultural–linguistic, and institutional–socio-political–technological (see Figure 15.1). In 2000, to build on these three dimensions, we established the Subantarctic Biocultural Conservation (SBC) Program at Omora Park, Puerto Williams, capital of the Antarctic Province of Chile. Today, this program is co-coordinated by the Institute of Ecology and Biodiversity (IEB) and the University of Magallanes (UMAG) in Chile and by the University of North Texas (UNT) in the USA ([www.chile.unt.edu](http://www.chile.unt.edu)). At a regional scale, it seeks to better understand, value, and protect biological and cultural diversity, and their interrelationships, in southwestern South America. Using the conceptual framework of the biocultural ethic, the SBC Program seeks to make visible and protect:

- A *habitat* that before 2000 lacked its own name: the subantarctic ecoregion of Magallanes (Rozzi et al., 2012);
- The *life habits* of subantarctic co-inhabitant (human and other-than-human) animals that are much less known than those of the subarctic regions in the Northern Hemisphere (Contador et al., 2012);
- *Co-inhabitants* that live in a region that was considered poor in its biodiversity and is now recognized as a world hotspot for non-vascular plants and other small organisms (Rozzi et al., 2008b).

## 2 The Field Environmental Philosophy Methodological Approach

After two decades of continuous research, educational, and service activities at Omora Park, researchers have developed innovative methodological approaches that integrate sciences, arts, policy, and ethics (understood in a broad sense) into biocultural research, education, and conservation. In order to better relate basic biocultural principles to human affairs, in 1998 the lead author of this chapter developed the methodological approach of *field environmental ethics* (Rozzi, 2001). However, ethics is often understood in a narrow, normative sense, and





**Figure 15.1** The Links among Specific *Habitats*, *Co-inhabitants* and Their Life *Habits* (“3Hs”)

Source: Figure modified from Rozzi (2013)

Note

The sectioned circles show that each of the “3Hs” includes biophysical dimensions, symbolic–linguistic–cultural dimensions, and institutional–socio-political dimensions. For example, with regard to habitats, the biophysical dimensions scale up from local ecosystems to the global biosphere, the symbolic–linguistic–cultural dimensions scale up from vernacular languages to the global logosphere, and institutional–socio-political dimensions scale up from local institutions to the global technosphere. The external circle makes explicit the value of the ecological worldviews of Native American and other non-Western cultures, of pre-Socratic and non-mainstream Western philosophies, and of contemporary sciences.

for that reason we subsequently decided to call it *field environmental philosophy* (FEP) (Rozzi et al., 2010).

Since 2000, FEP’s methodological approach has been adopted in formal education at preschool, elementary, and middle school and the university level, as well as in informal educational activities with members of local communities (members of indigenous communities, park rangers, tour operators, tourists,

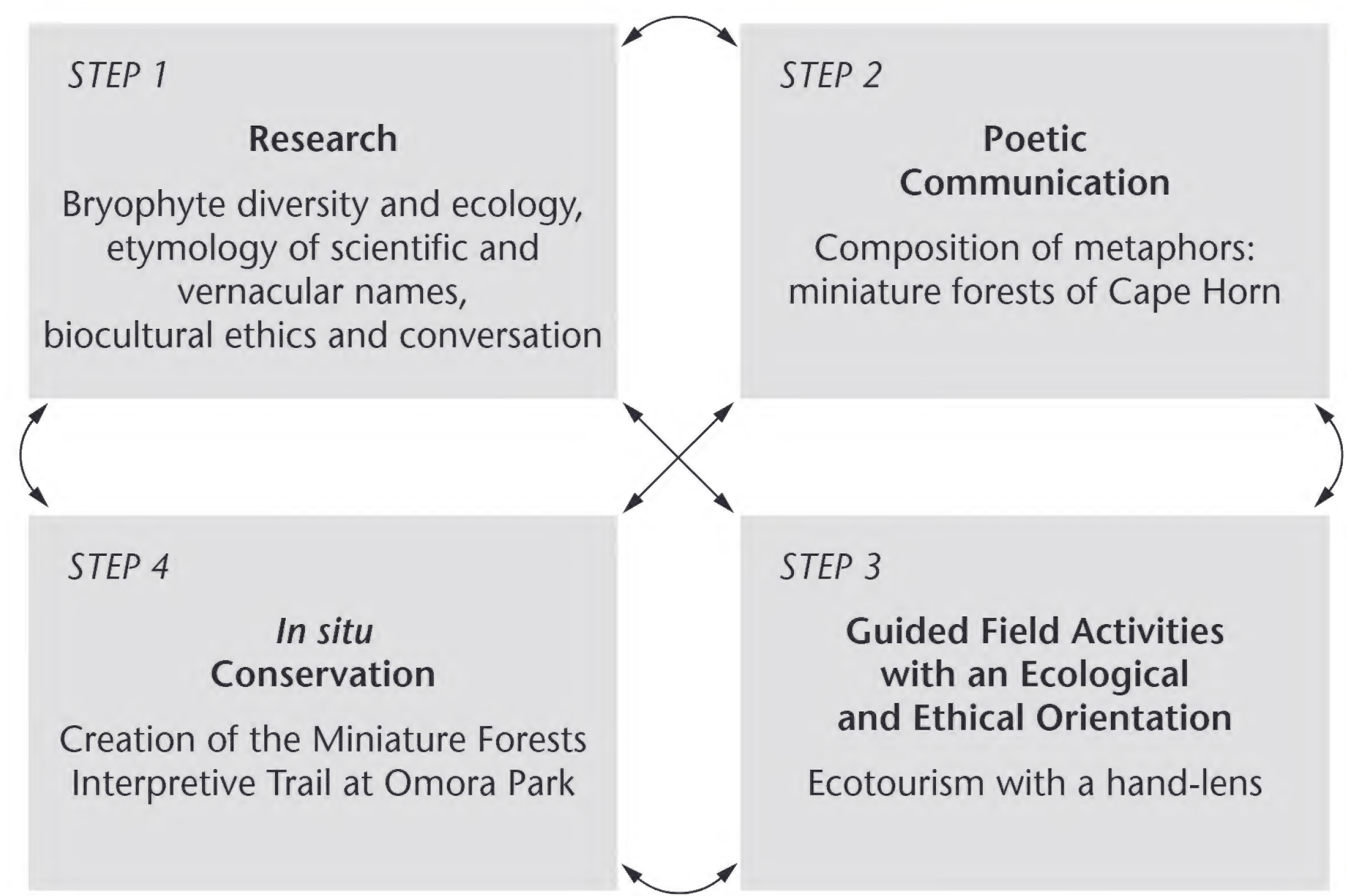


Navy personnel, and other citizens). Over 1000 workshops with government authorities and decision-makers have applied FEP’s methodological approach. It has been included in; (a) undergraduate and graduate curricula at the University of Magallanes, five other universities in Chile and over ten universities in Brazil, Mexico, Japan, Italy, Germany, and the USA; and (b) annual elective courses at elementary and high schools in the Magellanic Region of Chile.

FEP’s methodological approach comprises a multi-directional four-step cycle (see Figure 15.2).

*Step 1: Interdisciplinary ecological and philosophical research.* Participants conduct philosophical, ecological, and ethno-ecological research. This includes research on the diversity of values and perceptions about biocultural diversity held by participants from different disciplines, institutions, and socio-cultural groups, who speak different languages and have different forms of ecological knowledge and practices.

*Step 2: Composition of metaphors and communication through narratives.* Participants compose metaphors and narratives with two complementary intentions. First, they integrate ecological and philosophical findings (Step 1) through *analogical thinking* that leads to a conceptual synthesis of facts, values, and action in biocultural education or conservation. Second, they establish an engaging and clear dialogue with the general public. For example, the composition of



**Figure 15.2** The Four-Step Methodology of Field Environmental Philosophy

Note  
The methodology integrates ecological and evolutionary sciences and biocultural ethics into conservation, adapted to develop the educational and special interest tourism activity of “ecotourism with a hand-lens.” The four steps are based on the conceptual model of the biocultural ethic (see Figure 15.1).



metaphors such as “miniature forests of Cape Horn” facilitates the understanding that the diverse communities of mosses, hepatics, lichens, and other associated organisms form small ecosystems, and that mosses and other organisms are living beings. As such, they can be considered as co-inhabitants with human beings, rather than only as “natural resources” freely available for use without regulation or care.

*Step 3: Field activities with an ecological and ethical orientation.* For participants in FEP, the experience of direct or face-to-face encounters with living beings in their habitats has been essential for understanding biocultural diversity not only as a concept, but also as an awareness of co-inhabiting with diverse human and other-than-human beings. Ecologically and philosophically, guided field activities transform not only the knowledge about biocultural diversity, but also the ethics of living together with the diverse inhabitants with whom we coexist in regional ecosystems. For example, through field activities guided by philosophers, artists, and ecologists, the field activity of “ecotourism with a hand-lens” (EHL) was created to appreciate the aesthetic, ecological, economic, and ethical values of the “miniature forests of Cape Horn.” Today, EHL helps citizens, teachers, and decision-makers discover the beauty, diversity, and socio-ecological importance of this small flora that regularly goes unnoticed. EHL not only amplifies the view of mosses and other organisms in the miniature forests of Cape Horn, but also provides a conceptual hand-lens that broadens our mental, perceptual, and affective image of biodiversity and our relationship with it. Through this activity, participants are able to understand scientific concepts of the diversity and unity of life, and the ethical implications that broaden the narrow economic vision that currently prevails in the relationship of contemporary society with nature.

*Step 4: Implementation of areas for in situ biocultural conservation.* FEP requires participants to contribute to biocultural conservation actions: for example, the implementation of *in situ* conservation areas. This conservation fieldwork fosters a sense of responsibility as citizens who are ecologically and ethically educated proactively participate in care of the diversity of habitats and their various forms of life. For example, participants have contributed to the creation of the “Miniature Forests of Cape Horn Interpretive Trail” at Omora Park. Today, this trail allows visitors to observe and enjoy the diversity of habitats, species, and ecological interactions. In addition, during guided visits to the trail FEP participants invite various institutions and members of society to join initiatives to protect the diversity of habitats and their multifaceted communities of small and large co-inhabitants in Cape Horn and/or other regions of the world. In this way, FEP has helped to establish an institutional platform at Omora Park that integrates scientific research, education, and ecotourism, at the same time that it (re-)integrates philosophy with sciences, arts, and humanities.

As illustrated in the description of the 4-step cycle, a particular formal and non-formal education activity created with FEP’s methodological approach is



EHL. In 2001, former President of Chile Ricardo Lagos visited Omora Park and experienced FEP and EHL, accompanied by researchers who explained the relevance of the little plants and biota he was looking at, and highlighted their beauty and rarity. Later, President Lagos supported the Omora Park research team in their proposal to establish the Cape Horn Biosphere Reserve (CHBR), which was created by UNESCO in 2005 to protect nearly five million hectares of marine and terrestrial ecosystems.

FEP's methodological approach has allowed philosophers to participate in transdisciplinary projects to integrate the biocultural ethic with ecology and sustainable economics. The 2010 Development Plan of Chile identified "Tourism of Special Interest" as a priority economic area. In order to contribute to this sustainable area of the country's economy using the FEP methodological approach, Omora Park's research team focused on ecotourism as a major thematic area that encompasses cultural, social, and economic dimensions. In the following section, we examine how this approach has been developed for the design and implementation of EHL.

### **3 Ecotourism with a Hand-Lens (EHL): A Field Environmental Philosophy Experience**

FEP's methodological approach aims to integrate research, values, and conservation of cultural and biological diversity, from the planetary macro-scale to the micro-scale of small living beings, which are frequently overlooked by global and national research and education as well as environmental decision-making processes. EHL first emerged as a research focus as a result of an accident in the field, experienced by the lead author of this chapter.

In March 2000, Ricardo Rozzi accompanied an expedition of 'bryologists' (scientists who study mosses and liverworts) to the Cape Horn Islands at the southern tip of the Americas. The team, led by Bernard Goffinet, was searching for specialized mosses ('Splachnaceae') that were rumored to grow on the bones of beached whales in the southern parts of the archipelago. The group experienced severe storms while navigating in their tiny fishing boat—the "Maroba"—but they eventually made it ashore and began trekking across an area of peatland in search of plant specimens. Ricardo became separated from the group and accidentally slipped into one of the numerous scattered pools. Despite intense exertion, he could not extricate himself from the cold, dark water, and he resigned himself to his fate. But, as Ricardo sank slowly down, he began to notice the billowing and colorful cushions of mosses growing all around the edge of the pond, and thought: "I am a biologist, yet I had no former knowledge of the abundance and diversity of these small plants in my own country. How unaware might educators and decision-makers also be of this rich natural heritage in Chile?" Some years earlier, he had participated in committees charged with identifying priority sites for conservation in Latin



America, based on vertebrate and vascular plant diversity. The Magellanic subantarctic ecoregion was classified as “unknown,” and was therefore accorded low priority for biodiversity conservation. Fortunately, Bernard Goffinet and his team found Ricardo in the swamp after a couple of hours, just in time before he completely disappeared. Ricardo survived the episode, but that image of the exuberant diversity of mosses became fixed in his mind. He began systematically to compile a bibliographic review of bryophytes in Chile, and a full floristic inventory was initiated with Bernard, William Buck, and other bryologists in the Cape Horn archipelago. It was not long before, in a ‘eureka’ moment, they realized that the Magellanic subantarctic ecoregion constitutes a world hotspot for moss and liverwort diversity.

This accident triggered a biocultural research program, which later incorporated social experiences that demonstrated that the local community had a marked lack of knowledge and appreciation of the most diverse flora, with the highest degree of endemism in the area of the subantarctic region of Chile (Rozzi et al. 2008a). We will describe the problem we tackled and the solutions we developed by integrating work in the three socio-ecosystem realms of the biocultural ethic: (a) biophysical, (b) cultural, and (c) institutional.

### **3.1 A Biocultural Problem**

#### *a Biophysical Realm*

Until the year 2000, the biodiversity of the Magellanic region was poorly valued because it has low numbers of species of vascular plants and terrestrial vertebrates (mainly mammals, reptiles, and amphibians) compared to the Mediterranean Temperate Valdivian forest regions of Chile (Armesto et al., 1998). However, fieldwork changed this valuation because we discovered an exuberant diversity of non-vascular plants (Rozzi et al., 2008b) and of freshwater invertebrates (Contador et al., 2012), abundant cover of macroalgae in coastal ecosystems, and unique ecological attributes (Rozzi et al., 2012).

#### *b Cultural Realm*

Since 2000, at the single school in Puerto Williams, studies have been carried out with schoolchildren and teachers who are given structured and semi-structured surveys about their knowledge, assessment, and preference of flora and fauna species (Rozzi, 2001). Unexpectedly, since they are embedded in an archipelago with exuberant flora and native fauna, most of the respondents have shown significantly greater knowledge about vascular flora, vertebrate fauna, and cosmopolitan exotic species not found in the archipelagoes of Cape Horn—such as roses and apple trees (Rozzi et al., 2008a). In the surveys, 91 percent of the responses included species (e.g., larch) native to other regions of Chile or of



the planet (roses, apple trees, daisies, eucalyptus, lettuce, and orange trees). Furthermore, 78 percent of the plant species most named by students are not present in the region of Cape Horn.

Thus, the most diverse and idiosyncratic flora of Cape Horn were excluded from the knowledge and biocultural mindsets of local inhabitants. However, in complementary surveys we found that members of the indigenous Yahgan Community as well as older residents mostly named plant species that are native to Cape Horn. Therefore, lack of knowledge about native biota is a recent phenomenon, which particularly concerns formal education and recently arrived professionals from the public or private sectors. However, the latter are responsible for making development decisions in the Cape Horn County.

### *c Institutional Realm*

We examined the curricula and textbooks used by public education in Chile, including the Magellanic Region, between 2000 and 2010 and found that the examples of plants and animals they contained were almost exclusively vascular flora and vertebrate fauna. In addition, most examples were of species, such as roses and apple trees, from other regions. Examples of non-vascular plants and invertebrates were almost completely excluded (Rozzi et al., 2008a). These results illustrate how universal concepts and content in formal education, which are also present in development policies, mask local cultural and biological diversity. Roses and apples are essential plants in Western Christian culture. In addition, roses and apples now occupy a central place in the world and in the Chilean economy. Roses represent more than 66 percent of the flowers sold throughout the world, and Chile ranks fifth in the world among apple exporters. Therefore, the predominant presence of roses and apples in the mindsets of the inhabitants of Cape Horn expresses the central place these plants occupy in Christian-European culture and the globalized market that today reaches even remote regions of the world.

## **3.2 A Biocultural Solution**

### *a Biophysical Realm*

In the research and education programs associated with EHL, philosophers and scientists at Omora Park have focused on the uniqueness of the subantarctic habitats, the life habits of non-vascular and vascular plant species, as well as their abundance and distribution patterns. This focus contributed to the discovery, through the long-term research program of Omora Park, that the subantarctic ecoregion of Magallanes (less than 0.01 percent of the Earth's terrestrial surface) includes more than 5 percent of the species of non-vascular plants (mosses and liverworts) that have been described worldwide (Goffinet et al., 2012). This



discovery of a ‘hotspot’ or world center for the diversity of non-vascular plants stimulated a “change of lenses” to assess biodiversity at the austral end of America (Rozzi et al., 2008b). With a philosophical perspective, we have not only underscored the uniqueness of the subantarctic biota, but also the meaning and implications of the fact that this uniqueness has been ignored by prevailing education and policymaking processes that lead to biocultural homogenization, which undervalues, ignores, and often eliminates native and endemic biological species. Analogously, biocultural homogenization also entails elimination of vernacular forms of knowledge and oppression of indigenous and other local communities.

### *b Cultural Realm*

The philosophical “change of lenses” had implications not only for research but also for conserving biodiversity. The high diversity of subantarctic non-vascular plants was one of the strongest arguments for UNESCO to create the Cape Horn Biosphere Reserve in 2005 (Rozzi et al., 2008b). This is the most extensive biosphere reserve in the Southern Cone of America, and its creation was a novelty worldwide: this is the first time that a protected area has been designated in Chile, or around the world, based on the diversity of mosses and liverworts. These small organisms have been little appreciated not only in the Magellanic Region of Chile but also in international conservation. The “change of lenses” to investigate and conserve biodiversity thus leads to a change in the valuation of subantarctic biodiversity.

### *c Institutional Realm*

Omora Park philosophers, working with researchers, educators, and authorities in the Ministry of Education, introduced the FEP methodological approach in the curricula of schools (in 2000), preschools (in 2002), and the public university of the Magellanic region (in 2003). FEP has offered a ‘fine filter’ biocultural approach that incorporates methods and themes focusing on local biocultural diversity, including different forms of ecological knowledge as well as less conspicuous groups of organisms such as non-vascular flora, freshwater invertebrates, and marine algae. This represented a reorientation that departed from prevailing formal education programs developed by the Chilean Ministry of Education during the last decades of the twentieth century, and which intensified during the military dictatorship; these focused on a few biological species, mostly exotic species of commercial interest (e.g., salmon, eucalyptus, and pine trees) (Rozzi, 2012).

To achieve a biocultural education reorientation, collaborative work with institutions from both public and private sectors has been essential to include more broadly diverse forms of knowledge about less conspicuous groups of organisms into programs of school education, ecotourism activities,



and territorial planning (Rozzi et al., 2006). In contrast to the results obtained in interviews conducted in the year 2000, school students in Puerto Williams today name, recognize, and value a diversity of native non-vascular and vascular plant species, as well as those of commercial interest. Students at Chile's southernmost school have also won over ten regional and national awards in Chilean National Science Foundation (CONICYT) annual school science conferences, created art exhibitions, acted in theater plays, and developed a subantarctic cuisine based on seaweeds—a practice that had not previously been implemented in Magallanes or other regions of Chile.

The results show that the degree of knowledge and appreciation of subantarctic biodiversity can be positively reoriented in favor of biocultural conservation. This reorientation has been attained under the guidelines of the philosophical contextual and systemic approach of biocultural ethics, which interrelates specific habitats with specific life habits that encompass specific co-inhabitants. To achieve this aim, philosophers have worked collaboratively *in situ* with schoolteachers, students, scientists, representatives of the local indigenous community, artists, Navy officers, and personnel from various public institutions, as well as working as advisors to government authorities and leaders of citizen organizations.

## 4 Outcomes and Lessons Learned

The experiences of FEP and EHL, as described above, show the importance of fieldwork for observing and valuing biodiversity at both macro and micro scales. The outcomes associated with biophysical dimensions addressed by our biocultural approach are nowadays widely understood in regional formal and non-formal education, as well as the media, culture, and ecotourism programs, due to the clearer identification of the unique attributes of the subantarctic ecoregion of Magallanes, which explains the singularities of its biodiversity (Rozzi et al., 2012). Remarkably, wool, wood, and metal handicrafts of moss and lichen species have become popular in the cities, and even in stores at the airports.

The outcomes associated with the cultural and institutional dimensions of our biocultural approach are also significant. First, the integration of these dimensions has been linked to the coining of new names for an ecoregion that was previously 'invisible' and subsumed under the label 'Patagonia' (a region in southeastern South America characterized by its flat arid steppe and gaucho [horsemen] culture). Today, the rainy archipelagoes, fjords, forests, and glaciers, with cultural habits based on navigation (including bark canoes used by Native Americans, as well as fishing boats, Navy vessels, and, since the 1990s, cruise ships), is now amply recognized as the subantarctic Magellanic ecoregion (*sensu* Rozzi et al., 2012). Second, we can see success in the establishment of new educational methodologies, conservation policies, and institutions, such as the UNESCO Cape Horn Biosphere Reserve, the Omora Ethnobotanical Park,



and more recently the new Diego Ramírez Islands—Drake Passage Marine Park and the Subantarctic Cape Horn Center in Puerto Williams.

Based on our work, we can identify three methodological principles that contributed to establishing effective collaborations between philosophers and scientists, policymakers, and other actors to integrate science and philosophy into biocultural conservation. These principles could be adopted in other regions of the world.

### ***Principle 1: Interdisciplinary and Inter-Institutional Integration***

The first level of academic interdisciplinary work involves the integration of methods, perspectives, and data from natural and social sciences, as well as from the humanities. The second level of collaboration involves transdisciplinarity, strengthening interactions among academic and nonacademic actors, including governmental and nongovernmental agencies, and other public and private sector representatives involved in policymaking and decision-making (Frode-man et al., 2010).

Complementing interdisciplinary knowledge with transdisciplinary decision-making involving multiple national and international partners (e.g., UNESCO) was essential to achieving the creation of the CHBR. For example, including diverse professionals and institutions that possess the knowledge and authority to administer terrestrial, coastal, and ocean areas permitted the integration of land and, for the first time, marine ecosystems in a Chilean biosphere reserve. The principle of reciprocal illumination that has been effectively used by evolutionary biologists since the 1960s (Brower, 1996) can be adapted to understand the value of combining the findings of scientists and philosophers. At Omora Park, philosophers have acted as facilitators and have catalyzed teamwork to generate new metaphors, names, narratives, and activities for special interest tourism and policies.

### ***Principle 2: Overcoming the Linear Sequence from Research to Policy***

Systematic and continuous teamwork to integrate knowledge production and policymaking has relied on an iterative process conducted by an inter-institutional team. Philosophers, scientists, policymakers, and authorities have worked together, not to deliver a product, but to co-produce publications, policy documents, and recommendations through field teamwork conducted within various institutions.<sup>3</sup> This participatory process of co-production of knowledge and decision-making stands in marked contrast to the prevailing approach of hired consultancies led by professionals who deliver reports produced through a linear sequence of steps (beginning with the production of



knowledge, followed by its communication to policymakers and/or other users, and the eventual use by them).

Synchronic co-production of knowledge and policy documents significantly increases decision-makers' involvement and commitment to the goals. For example, synchronic teamwork was critical to achieving a consensus on zoning and defining the core, buffer, and transition areas of the Cape Horn Biosphere Reserve. In consultation with multiple local and national stakeholders, and with technical advice from UNESCO, a shift was achieved from prioritizing salmon farming toward favoring ecotourism in most coastal areas of the CHBR. Moreover, cooperation on the sensitive decision-making task of zoning allowed the incorporation of indigenous and other local populations for the first time in a Chilean protected area. Participation of philosophers enhanced understanding of the value of multiple knowledge forms and of inter-cultural, inter-institutional, and international processes that take place simultaneously in territorial planning.

### ***Principle 3: A Multiple-Scale Approach***

In parallel with biophysical processes, biocultural research and decision-making processes take place simultaneously at local and national levels as well as at the global scale. Consequently, we have to work at multiple scales to enhance the knowledge base in order to manage the extensive subantarctic territory and to monitor impending changes resulting from socioeconomic and conservation projects. To implement a multiple-scale approach at Omora Park, we defined three working scales:

- 1 *Local scale*, which includes a specific research site and the Sub-Antarctic Cape Horn Center in Puerto Williams in association with regional universities, national parks, and a UNESCO biosphere reserve;
- 2 *National scale*, which was achieved through the establishment at Omora Park of the Chilean Long-Term Socio-Ecological Research network (Chile-LTSER);
- 3 *International scale*, which is being implemented by linking the Chilean LTSER with the International Long-Term Ecological Research network (ILTER) and by the SBC Program co-coordinated by IEB and the University of Magallanes in Chile and the University of North Texas in the USA ([www.chile.unt.edu](http://www.chile.unt.edu)).

South America plays a critical role in the context of global climate change and, more broadly, of global socio-environmental change. In 2018, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) launched an assessment on “Nature, People, and Values” that is examining how prevailing global discourses do not adequately include the diversity of languages, and their ontologies, metaphysics, epistemologies, and ethics,



which are rooted in the heterogeneous biocultural mosaic of planetary regions. With the Omora Park research team we are now completing the establishment of the Subantarctic Biocultural Center in Puerto Williams, where philosophers are invited to play a key role in overcoming the limited inter-linguistic and intercultural dialogue among philosophers and other thinkers in environmental ethics that resides in different regions of the world. To reorient trends of global change that threaten the sustainability of life, we consider that it is essential to develop philosophical work that can re-establish a hierarchy of values that ranks the value of life above solely economic values.

In sum, the success of this project as a form of field philosophy has depended on collaborative teamwork, with kindness and respect for differing people and institutions. Collaborators are valued as colleagues, including members of indigenous communities, policymakers, educators, artists, government authorities, and Navy officers, as well as academic researchers. Over the years, academic collaborators have come from a number of research areas, from philosophy to the arts, tourism, journalism, and the social and natural sciences. Our collaborators, in the broadest sense, have ranged in age from preschool children to community elders. The success of the project has relied on people with a wide range of abilities and skills working together toward the common goal of conserving and valuing biological and cultural diversity, and the well-being of diverse socio-cultural communities. It has also depended on long-term *in situ* teamwork, with persistence as the project has grown and changed through two decades. And, finally, creativity has been expressed by broadening our philosophical conceptions of environmental ethics, by including biocultural diversity, socio-environmental justice, and horizontal teamwork to develop an effective conservation policy, and by expanding the scales in which we work.

## 5 Future Opportunities to Integrate FEP and Earth Stewardship

For 20 years, philosophers working in a remote area of South America have succeeded in working on a transdisciplinary biocultural initiative to establish continuous long-term programs linking academic research with local cultures, social processes, and decision-making. Through collaboration with the Chilean Government and local, national, and international communities, researchers, artists, writers, students, volunteers, and friends experience dynamic and innovative ways to better integrate academia and society. To consolidate this initiative, the Omora Park research team was awarded 20 million dollars by the Chilean Government in 2017 to build an iconic center in Puerto Williams: the Sub-Antarctic Biocultural Center. This facility will allow us to conduct transdisciplinary research and education linked to sustainable development and long-term socio-ecological research at a critical geographical location in the context of global change. It will be inaugurated in 2020, as the first international



subantarctic conservation and research platform to monitor climate change and its impact on biodiversity, as well as to mitigate and adapt to global change.

In 2015, philosophers working with the Omora Park research team also undertook a complex policy process as well as multiple-stakeholder negotiations for the preparation of the scientific-technical proposal to create a 15 million hectare marine park to conserve one of the few (and the largest) terrestrial and marine wilderness areas remaining on the planet in the twenty-first century. In 2017, we succeeded in negotiating with both artisanal and industrial fisheries, the Ministry of Economy and the Ministry of Environment, and the regional government. In 2018, the Chilean President signed a decree creating the Diego Ramirez—Drake Passage Marine Park, and the official document was published in 2019. This marine park will protect critical nesting sites for endangered albatrosses, penguins, and other marine species, conserve ecosystems with abundant seaweeds and phytoplankton that represent a critical ‘blue lung’ for the planet, and conserve a unique range of biodiversity hosted by major seamounts in the Drake Passage between South America and Antarctica.

During these 20 years, in light of the rapid cultural, socioeconomic, and ecological transformations taking place both in the remote austral region of South America and around the globe, philosophers and other researchers have hosted a series of interdisciplinary workshops at Omora Park. Leading international scholars (importantly, environmental philosophers and ecologists) have worked together with government authorities and concluded that there is an urgent need to develop Long-Term Socio-Ecological Research (LTSER) rather than merely Long-Term Ecological Research (LTER) networks. LTSER network sites go beyond LTER sites in their capacity to link biophysical processes to governance and science communication. In answer to this need, we co-founded the Chilean LTSER network at Omora Park in 2008 (Rozzi et al., 2010). LTSER networks provide an institutional platform to explore decision-making processes at multiple scales and to understand conflict as a basis for reconciling divergent goals among stakeholders, thus enhancing the resilience of local communities, places, and ecosystems (Haberl et al., 2006). As a significant contribution toward this mission, Omora Park has introduced FEP’s methodological approach at multiple LTSER sites by closely collaborating with the International LTER (ILTER) network and the Earth Stewardship Initiative launched by the Ecological Society of America (ESA) in 2009 (see Rozzi et al., 2015).

Earth Stewardship implies a paradigm shift that links facts and values with multiple forms of ecological knowledge and practice. Thus, it broadens the mission of the ecological sciences. To confront global environmental change it is necessary, but not sufficient, to conduct long-term socio-ecological research. It is also necessary to act. As a means of engaging science and society in rapidly reducing the rates of anthropogenic damage to the biosphere, the Earth Stewardship Initiative launched a call for action that appeals not only to ecologists, but also to anthropologists, sociologists, engineers, economists, religion scholars,



and conservation biologists, as well as to other professionals, decision-makers, and citizens.

At Omora Park we proposed to the ESA that, for an Earth Stewardship that values biocultural diversity, it is indispensable that ecologists also collaborate with philosophers, policymakers, and artists. Scientists need to engage not only in the production of knowledge, but also in public discourse and understanding, as well as in decision-making, education, and governance. Philosophical inquiry—by professionals as well as laypersons—adds to the aim of advancing the FEP's methodological approach and the Earth Stewardship Initiative at a planetary scale. Inter-hemispheric, intercultural, and transdisciplinary collaborations have helped us to address (a) *biophysical–geographical gaps* and (b) *conceptual–philosophical gaps* in the coverage of ILTER at Omora Park.

With regard to (a) *biophysical–geographical gaps*, more than 90 percent of ILTER sites are located in the Northern Hemisphere (Rozzi et al., 2012). Furthermore, within the Northern Hemisphere 89 percent of ILTER publications are generated in temperate regions, and only 1 percent in equatorial regions (Li et al., 2015). Consequently, the distribution of ILTER sites and ILTER research efforts are more associated with political and economic resources than with the geographic distribution of biodiversity.

With regard to (b) *conceptual–philosophical gaps*, until now the social component considered in socio-ecological studies worldwide has been primarily economic (Rozzi et al., 2012). ESA's Earth Stewardship call gives special consideration to both ecological and *socioeconomic* facts (Chapin et al., 2011). Similarly, the European LTSEER platform was designed as a research infrastructure to support integrated *socioeconomic* and ecological research (Haberl et al., 2006). Socio-ecological studies are subsumed by 'socioeconomic' ones, and it is striking how the fields of philosophy, including ethics, have been ignored. For example, Singh et al. (2013) prepared a comprehensive review of long-term socio-ecological research in the USA and Europe, but in the whole review the words 'philosophy' and 'ethics' are not included at all. The Omora Park research team has criticized this omission. We are contributing to solve it by incorporating philosophy and ethics into the theory and practice of long-term socio-ecological research. Interestingly, as documented by Li et al. (2015), over 99 percent of all ILTER publications in the arts and humanities are generated by researchers working in the Southern Hemisphere, and most of these publications have been generated by researchers at Omora Park.

## Conclusion

This chapter has called attention to the opportunities for stronger partnership and complementarity in long-term socio-ecological research and stewardship initiatives across the planet. The southern regions can demonstrably add to the integration of social, ethical, and artistic dimensions to transdisciplinary socio-ecological



research at ILTER and other networks, providing a broader intercultural and participatory foundation for Earth Stewardship. Earth stewardship requires that global phenomena and regional biocultural heterogeneity be linked. To fulfill this goal, LTSER networks should aim to forge appropriate ‘conceptual lenses’ in the same way that these networks aim to forge appropriate technological sensors to research and monitor socio-ecological systems. In this mission, environmental philosophy and ethics undertake a task that is as relevant as that undertaken by environmental engineering and the environmental sciences.

For LTSER sites such as the one we have created in Cape Horn, FEP offers a methodological approach for integrating philosophy with the sciences through transdisciplinary fieldwork. Philosophers learn from other researchers, members of indigenous and other local communities, authorities, and other participants. In turn, philosophers help members of these teams not only to gain ecological knowledge, but also to become aware of ethical, economic, aesthetic, and ecological values through an active, situated practice immersed in habitats and communities of co-inhabitants. Participation of philosophers in research, education, and policymaking teams has also enriched intercultural dialogues involving complementary local and global forms of ecological knowledge and practice. In FEP, philosophers act as ‘Socratic facilitators’ who enhance the expression of diverse habits of Earth Stewardship in a bioculturally heterogeneous and rapidly changing world.

## Notes

- 1 ‘Omora’ means hummingbird in the Yahgan Native American language (Rozzi et al., 2006).
- 2 The concept of co-inhabitants is central to the biocultural ethic. Just as the concept of companion alludes to sharing bread (from Latin, *cum* = with; *panis* = bread), the term co-inhabitant refers to sharing a habitat. Sharing the habitat involves ecological–evolutionary processes, as well as an ethical duty and taking care of the habitat. Therefore, the concept of co-inhabitant has a double meaning; it is both descriptive and normative (Rozzi, 2012).
- 3 Produced documents include white papers, legal proposals, governance and management plans for protected areas, territorial planning, recommendations for the Chilean Antarctic Law to incorporate the subantarctic region, the successful proposal to CONICYT to create a special research division for funding both Antarctic and subantarctic research, as well as numerous academic publications that have been prepared through fieldwork and teamwork involving philosophers along with policymakers, educators, representatives from indigenous communities, as well as academic researchers from multiple disciplines.

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## **PART IV**

# Fieldwork in the Professions





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# 16

## BALANCING THEORETICAL AUTONOMY AND PRACTICAL ENGAGEMENT<sup>1</sup>

*Tsjalling Swierstra and Merel Noorman*

### 1 Introduction

Field philosophy, as described in this volume, is case-based and directed at influencing a practice or a product. The ideal is to move closer to the action, to be more interventionist, and to closely collaborate with stakeholders and colleagues from different disciplinary backgrounds. Rather than shunning the hustle and bustle of the streets and markets by retreating into the calmness of one's study—as the traditional philosopher tends to do—field philosophy returns to its Socratic roots, being a form of argumentative and reflective engagement of the philosopher with her fellow citizens. The field philosopher thus gives up her position as a professional outsider who offers theoretical critique and reflection to those within the practice. In a sense, she aims to become a practitioner among practitioners, collaborating with the other stakeholders on a collective product.

The two authors of this chapter both have a background in the philosophy of technology, especially in the ethics and politics of new and emerging technologies. We are both working on normative and political issues regarding how cities nowadays increasingly use digital technologies to enhance the quality of their processes and services. The fashionable label for these experiments is 'Smart City.' This refers to a vision of the future city as one in which ubiquitous data-processing technologies finely tune flows of people, products, traffic, communication, and services. Critics have pointed out that this vision tends to be technocratic in orientation (Greenfield 2013; Kitchin 2014; Townsend 2014). Focusing on efficiency, health, sustainability, mobility, and security, the smart city seems to be more 'for' than 'by' the people. How can we ensure that smart cities are democratic, in the sense that citizens participate as political



equals in collective decisions? Ideally, an answer to that question would have to be developed together with the citizens themselves.

We were therefore very excited when an opportunity arose to do field philosophy at the site of a Dutch energy network operator called Current in 2015–2016.<sup>2</sup> As a semi-public company with an obligation to guarantee affordable, accessible, and reliable transport and energy distribution, Current boasts a well-developed sense of corporate responsibility.<sup>3</sup> Presently, the company is faced with the daunting task of managing the transition toward a sustainable energy system. Experts anticipate a transition from centralized electricity provision toward locally generated and distributed electricity. Through new technologies, such as solar cells, consumers of electricity will also become producers, thus evolving into ‘prosumers.’ The increasing number of (smaller) energy producers and less-predictable energy sources (e.g., solar and wind power) make the whole system much more dynamic and complicated to manage. Without going into technical detail here, it suffices to say that the company is at the forefront of developing digital technologies that will enable this transition. This makes Current one of the key players in the Dutch smart city context.

The strategic director of Current was keenly aware that the digitalization that the company was pursuing to facilitate the energy transition could easily backfire. Digital technologies that would help manage the increasingly dynamic demands on the electricity grid require that the company has access to *real-time* data about how citizens use electricity. Only then can the stability of the grid be guaranteed. However, the data requested from citizens can be sensitive, raising privacy concerns. There is a risk that citizens will experience their energy network operator as ‘Big Brother’ spying on them. The strategic director was therefore looking for normative guidelines and good practices that could provide the democratic legitimacy necessary for a successful energy transition. Moreover, she observed that, at the time, Dutch society lacked a vocabulary to identify and discuss the democratic challenges posed by digital technologies.

This is where we came in. After consulting with Current, we developed a field philosophical project to address the issue of the democratic underrepresentation of citizens in shaping and controlling their increasingly digital environment. In doing so, we would help tackle the issue of democratic legitimacy for the digital technologies that Current needed. Our plan was to develop an ethical framework to facilitate *long-term equal stakeholderhood* in smart cities. We would not do this from behind our writing desks, but in close dialogue with the stakeholders: policymakers, technology developers, and citizens. Furthermore, we sought collaboration with two social scientists to help ensure that our philosophical proposals would remain firmly grounded in the complex socio-technical environment that we aimed to affect. Finally, we secured funding for three years from Current and from the Responsible Research and Innovation program of the Dutch Science Foundation.



Our research started from the interests of a non-philosophic audience. We, in turn, looked forward to collaborating with technical innovators to develop approaches or tools to address some of the democratic concerns that digital technologies raised in the context of the smart city. However, the move from armchair to street came with considerable challenges and unavoidable value trade-offs. During the whole project we struggled with our role, particularly with finding a balance between theoretical distance and practical engagement, and between pursuing our own normative agenda and taking a more disinterested stance in order to be part of the team.

In this chapter we reflect on our experiences by describing two experiments that we conducted in the course of this project. In the first experiment we attempted to contribute to a start-up initiative by positioning ourselves as mediators between the developers of a digital platform and its stakeholders. We will describe two obstacles that eventually made us change course. In the second experiment we opted for the more traditional philosophical role of developing theoretical tools for the practitioners. This role came with its own challenges. In the conclusion we summarize our findings and distinguish three different roles for the field philosopher on a continuum constituted by the extent to which the philosopher is bound by contributing to a collective outcome.

Failures do not always receive the attention they deserve. It is often mandatory, for academic, economic, social, and/or political reasons, to report success. That is unfortunate, because it is exactly these failures that invite reflection on how the embedded position of the field philosopher affects the content and form of her philosophizing. We hope that a frank discussion of failure enables a learning process regarding some ‘dos and don’ts’ of field philosophy.

## 2 The Practitioner: The Datashare Experience

As stated above, Current struggled with the fact that people were not keen to share their private data. The company was therefore looking for ways to garner public trust. This was why it invested heavily in a start-up called Datashare.<sup>4</sup> This start-up was to develop a digital platform that would incorporate important ethical values such as transparency, safety, security, privacy, and user control. In doing so, it was to constitute what Current called a ‘trusted environment’ that would inspire confidence in its users, who would then be more willing to share their data, in particular about their energy usage, with Current. In order to make the platform attractive for these users, Datashare aimed to interest other companies and organizations besides Current in using the platform to provide their own services. In this way the platform would be an attractive hub with a lot of traffic. We agreed to help develop this trusted environment.

The plan was to work with all kinds of stakeholders to design the platform in accordance with their needs and ethical values. Our research would combine observation and intervention: we would not only explore how Datashare



engaged with its stakeholders, but would also introduce a participatory approach to technology development (Noorman et al. 2018). We intended to organize a series of workshops to open Datashare's innovation processes to a wide variety of stakeholders. These workshops would help to articulate the implicit values, biases, and interests of Datashare's proposed technical design and to explicate the interests, values, norms, and viewpoints of the platform's stakeholders, including users, developers, and third-party business partners. As field philosophers, we thus envisioned a role as mediators between Datashare and its stakeholders, where we would identify and translate the values of the parties involved.

It soon became clear that there were serious mismatches between our participatory ideals and the ways Datashare chose to deal with its stakeholders. We discuss two clusters of problems, resulting from, respectively, the fact that Datashare was a lean start-up and that it was a commercial enterprise that was dependent on attracting clients and users.

## 2.1 *Lean, Moving Target*

The tensions and difficulties that we experienced were partly due to the *lean start-up* approach the company had adopted (Ries 2011). Datashare did not start from a clearly developed problem definition or envisioned solution but chose to keep both fluid. Rather than thinking through and planning everything first, and then subsequently executing the planned design, their intended strategy was to develop both the business concept and technical solutions along the way, in continuous interaction with varying stakeholders. They planned to use an iterative process, in which ideas and prototypes were repeatedly tested on potential users to see which ones 'got traction' and which ones failed to raise interest. Not 'Think *before* you leap,' but 'Think *while* you leap.'

This 'lean' approach confronted us, as philosophers, with unexpected problems. Basically, it made us aware how non-lean the DNA of philosophy is. Our collaborators often thought we were slow, and annoyingly so. The lean start-up method is based on an implicit metaphysics of speed, change, and dynamics, and comes with a matching set of virtues. In this sense, it is defined by its own implicit ethics. By contrast, philosophy is typically about pausing and creating time and space for slow reflection and deliberation. It proved to be very hard to break with the millennia-old habit of having theory—in the form of questioning, reflection, deliberation, consensus—precede practice. In Datashare's dynamic environment our ambition to develop a comprehensive ethical framework for stakeholder involvement seemed weirdly out of place, as did our default mode of the questioning and critical philosopher, which sat uneasily with the forward-looking enthusiasm typical of engineers and entrepreneurs.

We sought to act as mediators between innovators and (especially, the powerless) stakeholders, but Datashare's lean approach confronted us, as field



philosophers, with two problems. First, we found ourselves trying to hit a moving target. When neither problem nor solution are fixed, it is fundamentally unclear what the technology actually will be and will do. It is equally unclear who its users—and, more broadly, its stakeholders—are going to be. As a consequence, it was difficult to approach these individuals to explore and support their values, interests, and perspectives. Second, even if that had been possible, it was unclear whether their values could result in guidelines for the developers of the technology. After all, in a lean way of working, yesterday's decisions are very much yesterday's news and carry little weight for the new options that materialized today. One does not want to be bound by previous promises and commitments. The same held for our offer to develop anticipatory knowledge regarding the way the platform might eventually function, including its unintended side effects. There was little interest in, or even patience with, our attempts to create a long-term, bigger picture.

## ***2.2 Stakeholder Inclusion: Handing Over the Reins, or Ethical Marketing Research?***

A second cluster of problems resulted from the precarious position that Datashare was in. A participatory approach to technology development tacitly assumes that stakeholders ardently desire to be included. In reality, this proved to be far from the case. In fact, the main problem for Datashare was how to lure in potential clients and users. Its management spent a lot of time and energy trying to forge links between the interests of targeted stakeholders, on the one hand, and the Datashare platform, on the other. An additional problem was that the interests of these potential stakeholders often conflicted. Direct and open deliberation between stakeholders—the normative core of our approach to designing a 'trusted environment'—was therefore considered to be out of the question, as it could introduce unmanageable conflict that could undermine the whole project.

Careful brokering and negotiating were constantly necessary. As a result, instead of us mediating between Datashare and its marginal stakeholders, Datashare's management team carefully guarded its role as mediator. Instead of developing a business concept that could appeal to all the different stakeholders because it was based on a shared understanding of that concept, Datashare strategically separated the different stakeholder groups and the different stories about what the platform would offer and allow. We were particularly struck by how the team members used ethical concepts, such as autonomy, privacy, and trust. At first, they would emphasize privacy, later they would shift the focus to trust, and then to control and personal autonomy, only to finally re-emphasize privacy again. These terms were used strategically, and mattered only with regard to how different stakeholders perceived the product. We found that this is a quite common strategy in innovation. As Barta and Neff (2016, p. 520) put



it: “when multiple values are in play simultaneously [...] then the work of innovators is to recognize how to keep these multiple values ambiguous in order to appeal to different kinds of people.” Rather than constructing one unifying story applicable to all settings, team leaders instead allowed for ambiguity and carefully managed the information flows that went back and forth between the different groups.

The fragility of Datashare’s stakeholder relationships also made shared decision-making problematic. Datashare was not only hesitant to organize a deliberative forum for its stakeholders because it feared conflicts among them; it was also unwilling to delegate decision-making powers to its stakeholders—including us. It is too much to ask of entrepreneurs to hand over the reins. Thus, there was no space for a shared and symmetric deliberative process where all stakeholders could feel bound by collectively taken decisions. Datashare’s managers approached stakeholders as sources of information instead of as partners, and they were careful to avoid entering into any relation that could imply mutual obligation. Stakeholder meetings could therefore never amount to more than a kind of focus group in some form of ethical marketing research. Anything like stakeholder participation and collective decision-making was out of the question.

### **2.3 Lessons Learned**

Although our ideas about stakeholder involvement did not match the everyday reality of the struggling start-up that Datashare was, we do think our experiences offer four possible lessons for those who want to pursue field philosophy.

The first lesson is that before engaging with a practice, one should explore what that practice entails and what the rules of engagement are. Looking back, we had underestimated the uncertainties in working with a start-up company and the time that it takes to really fathom the organization and everyone’s expectations, roles, and responsibilities. We only gradually came to appreciate that we were part of an ongoing negotiation about what the organization, the product, and technology were. Moreover, our aims and those of Datashare did not sufficiently align, notwithstanding our shared commitment to value sensitive design. In light of the practical constraints Datashare was under, our ideas about stakeholder involvement were naïve, and our envisioned role as mediator between stakeholders was too ambitious and probably misguided (Noorman et al. 2018). Although this is just one case, it leads us to express caution about the role of philosophers in fast-moving entrepreneurial contexts.

A second, and perhaps more fundamental, lesson is that as field philosophers we should reflect on possible mismatches between our ‘philosophical DNA’ and the requirements of the practice we engage in. If philosophers move from study room to the street, that is going to affect how they do philosophy. Philosophy is proud to be slow. This may be for sound reasons, but it also means that in some



contexts one gets dismissed as slow-witted. Also, the standards of transparency and openness that characterize philosophical reflection and deliberation can be incompatible with market-driven demands for opacity, ambiguity, and strategic manoeuvring. We struggled with the question whether we should (and, if the answer was ‘yes,’ could) devise a type of philosophical reflection that would somehow fit the dynamic, fast-paced, and often opaque environment of this lean start-up. Or should we pull out once we realized that we were unsuccessful as mediators, as practitioners among practitioners? But then we would also forfeit our chance to develop the certification tool for the platform.

A third lesson, then, is that as a field philosopher one sometimes has to choose between pushing your own normative ideas and letting yourself be guided by the interests of your collaborators. If one is unwilling to do so, wishing to keep one’s hands clean, then it is best not to get too close to the field. As we were not ready to give up on including stakeholder values in the digital platform, and also felt obliged to Datashare, which had hosted us hospitably, we attempted a type of philosophical intervention more appropriate to the lean start-up environment. What we came up with could be dubbed ‘stand-up philosophy,’ except that there was no humor involved. To avoid being slow, we resorted to periodic observations of Datashare’s daily practices and meetings, and to occasionally engaging in conversations with the team. We found that by simply being there we triggered reflection on the concepts used, and encouraged the team to articulate and explicate their thinking. For example, whenever the subject in a meeting would turn to privacy, everyone would look at the philosopher in the room to check for a response, or they would justify or hedge their comments.<sup>5</sup> We also attempted to represent, as much as we could, what we knew about the interests of the ordinary citizens to Datashare’s management—thus salvaging a few of our initial ambitions. Giving up on being mediators, we retreated to the time-tested role of the philosopher as advisor to power. Not quite what we had hoped for at the start, but the best we could think of under the circumstances. After all, we lacked bargaining power. Essentially, we were guests and had to behave as such.

A final lesson was that becoming a practitioner among practitioners also means becoming dependent on the success of one’s collaborators. We learned this the hard way. Our ethical project, including our promise to design a certification tool, was predicated on the general success of the Datashare project. Unfortunately, halfway through our project period Datashare was put on hold by Current for various reasons that go beyond the scope of this chapter. With Datashare, our own involvement also abruptly ended.<sup>6</sup>

### 3 The Theorist: The ‘Democratic Digitalization’ Experience

When Datashare was shelved, we looked for a second experiment for our overarching project of enhancing long-term equal stakeholdership in smart cities.



Having learned from our previous experiences, we decided to create some distance between us and the hustle and bustle of a struggling start-up. Rather than mediating between stakeholders, both of us now wanted to adopt a more independent position. We felt this would be more compatible with our philosopher's DNA: the desire to slow down, to be transparent and open, and to develop a normative or critical stance. So, having tried to be a mediator and a stand-up philosopher, we were now ready to return to our better-known role as theorist. To be sure, this did not mean that we wanted to give up on being field philosophers. Yes, we wanted to move away from collaborative case-based research at the project level, but our theorizing should still be grounded in the interests of a non-philosophical audience (our philosophizing was to be demand driven). We still aimed to develop our theory in the context of its use by our stakeholders at Current. Rather than produce a primarily academic end-product for our philosophy colleagues, we wanted to develop an accessible and succinct tool that could actually be used by partners at Current and by other parties interested in keeping smart cities democratic.

The *Democratic Digitalization*<sup>7</sup> (DD) project that had just been initiated within Current seemed to provide the opportunity to become more independent and theoretical. DD focused on the ethical and social issues that new digital technologies raise in the public domain. The proliferation of digital platforms—such as Airbnb and Uber—may hold great promise, but there is also a flipside: private companies threaten to take over public space. Current recognized that democratic governance in a smart city requires some form of public oversight of these privately-owned platforms. Three of its employees had written a discussion starter in this vein. In it, they identified three ways in which digital technologies challenge democracy: digital platforms tend to centralize power; there is a lack of democratic control over key algorithms; and a similar lack exists in the case of dealing with private data about citizens. The discussion starter pleaded for extending democratic control, based on values such as equality, inclusivity, and freedom of choice. Moreover, they suggested technical, legal, and social measures to ensure democratic control over digital technologies in the smart city.

We agreed with Current that we would join the project team that was to further develop the concept of Democratic Digitalization and its practical operationalization. Other members of the team included the DD project leader and a project manager at Current. We were tasked to develop a normative framework that was to provide:

- 1 A shared vocabulary to discuss the issues at stake;
- 2 A heuristic tool to identify, articulate, and address the different democratic challenges that particular smart city technologies generate;
- 3 A set of design challenges and principles for democratic smart city projects.



We planned to organize so-called ‘case workshops,’ engaging with technology designers to identify problems regarding democracy that arose and to help them explore how best to address these problems. This way, we would learn from practice, iteratively test theoretical insights in practice, and share our findings with external partners and other audiences.

For us, the new project had important advantages compared to the Datashare project. First, we would be able to build on the existing work of Current’s own strategy department. We wanted to ensure that our private partner would actually take up our findings by connecting to an internal discussion—instead of trying to interest them in philosophical products that did not fit their entrepreneurial priorities. What we had to offer was a better understanding of the ethical and political issues confronting Current, and there was support within the organization for further developing such ideas. Second, we would be working on general topics that we expected to be more immune to the frenzy of lean development. The new project allowed us to stay closer to the traditional slow-craft of the philosopher: developing arguments, doing conceptual analysis, reading and writing texts. Third, in contrast to the Datashare case, the DD project allowed us to create a product and develop a normative position more or less on our own, rather than having to follow the agenda of our collaborators. Finally, the end product would have a chance of being relevant even if the private partner decided to withdraw—as had happened in the case of Datashare. Current was not the only company struggling to come to terms with the ethical and democratic challenges posed by digitalization.

However, despite the fresh project design we ran into new obstacles. First, despite our intentions, we ended up as mediators again rather than as theorists. Second, in that mediating role we had considerable difficulty engaging relevant stakeholders, which negatively impacted our ability to develop a theoretical framework. And third, we were again affected by the constraints and dependencies that come with working in a collaborative project.

### ***3.1 Practice What You Preach***

In the Datashare project we had been pushing for a participatory approach to technology development. As we were by now all too aware of the practical difficulty of getting stakeholders interested—and willing to invest time and effort—in workshops, we now opted for a more top-down, theory-driven approach. In other words, we had very practical reasons to prefer a ‘theory-driven’ approach. To avoid re-inventing the wheel we planned to start by mapping the existing academic literature on democracy and digitalization. At a later stage we would then use the case workshops to establish more precisely what Current’s technologists needed and to check whether our proposals fitted their problems.

However, Current was suddenly, much to our surprise, pushing to increase stakeholder participation. They stressed that our project had to practice what it



preached: while developing the framework we were to engage as many stakeholders as possible and to make them part of a deliberative process. The reason was that they saw the Democratic Digitalization project as a means to cultivate a larger network that would collaborate in democratizing the smart city. Of course, we wanted to take seriously the interests and demands of our collaborators and funders. More pragmatically, we also depended on Current to make the project a success and to have access to smart city innovators. So, to meet Current's demands for stakeholder inclusion and network building, we agreed to organize 'round-tables' with academics, professionals from various disciplines and backgrounds, politicians, and citizens.

Despite our firm intention to move away from mediating between technologists and their stakeholders, we ended up being charged with exactly that task. Instead of first thinking things through on our own, we found ourselves brokering between different perspectives to come to some shared understanding of the problem and its possible solutions.

### **3.2 Stakeholder Engagement**

The round-table sessions were not the success we had hoped. The commercial companies had little intrinsic motivation or incentive, as they did not regard 'democratic digitalization' as their priority or responsibility. Politicians and policymakers responded politely to our invitations, but stressed they had to divide their limited time between many initiatives. For citizens, the themes proved to be too abstract and removed from their daily concerns. The participants easiest to interest in a workshop were fellow academics. We had only three hours per session, as that was the maximum we could persuade participants to invest. The discussions in the round-table sessions remained very abstract—even when we invited everyone to focus on one concrete example—and it proved impossible to achieve closure on anything. The energy required to arduously enable translations between stakeholders, i.e., organizing the sessions and engaging stakeholders, came at the cost of actually doing the translating. As a result, the round tables provided us with few new insights, nor were they successful in terms of networking.

By contrast, the case workshops—co-organized with the DD project leader—were more helpful. The project leader concentrated the case workshops on projects and start-ups financed by Current, as their dependence on this company made them prone to collaborate with us. We explored how the technologies that these start-ups were developing raised issues regarding democratic decision-making. The case workshops provided valuable insights into the issues that technology developers were running into in practice. They gave us a deeper understanding of the complexity—in terms of technology, stakeholder relations, politics, legal concerns, etc.—these innovators were dealing with.



### 3.3 External Constraints

While collaborating with the Datashare team, we had felt that we were not given sufficient autonomy to develop a normative position of our own. In the DD project, we thought we had secured that autonomy. In reality, we spent so much time organizing round-table sessions, case workshops, project meetings, and giving presentations at various venues that we made only slow progress on the actual development of the framework.

Halfway through the project we noticed that the momentum was dropping. We were informed that Current had experienced some managerial upheavals and that the CEO who had supported reflective initiatives like ours had been replaced by someone more business-minded. The silver lining of Current's declining interest was that we now had more time for our theoretical work. Using the existing literature, we developed a diagnostic tool. The tool operationalized 'democracy' by identifying core democratic functions and practices and offered a systematic overview of the ways in which digitalization threatens *and* vitalizes local democracy. It also identified instruments and strategies to meet those threats and to stimulate pro-democratic practices. In this way, the tool provides companies like Current with a vocabulary to discuss democracy in smart cities and what this implies for their technologies.

Our project manager at Current remained in touch with our work and was pleased with the results. However, when we finally presented our results to Current's higher management, we met a lukewarm response. The corporate responsibility manager was interested, but much of what we proposed was too novel for him, as his work so far had to do with sustainability. The head of the strategy department, who had initially greenlighted our project, agreed we had delivered on our promise to devise a vocabulary to articulate new problems around digitalization and democracy. Unfortunately, she did not feel it was very relevant to Current's strategy in the energy transition at that moment. Neither did she warm to the idea of follow-up or implementation plans, as Current's strategic orientation had changed under the new CEO from long-term vision to short-term project returns. The world of digital technologies is rapidly changing, and Current is now less interested in theoretical vision than in quick, iterative, smaller projects that are regularly evaluated and adapted in order to keep abreast of the fast-moving developments. So, we had come full circle. Although we now had secured a space for slow philosophy and for a critical stance, both were more or less dismissed as incompatible with the demands of innovation practice.

### 3.4 Lessons Learned

The DD case confirmed some of the other lessons we learned at Datashare. Ironically, being in the position of having to find and interest stakeholders for



our own (philosophical) product, we could better appreciate why Datashare's management had been unwilling to completely stake the success of their platform on stakeholder deliberation. Collaborating with stakeholders really takes a lot of time and energy: it takes time to organize meetings and translate between the different stakeholders. One has to be aware of this and be prepared to invest the time. Otherwise the outcomes might not justify the effort.

Another lesson was the tension between the autonomy of the philosopher—in particular, when it comes to her normative agenda—and the ambition to contribute to a collaborative project. In this project, our ambitions and expectations sometimes conflicted with those of our partners. They had particular ideas about how to develop the platform that required us to change our approach. We adapted our plans to be responsive to their needs and to ensure that our eventual output would be useful to them. Moreover, we felt we were both obliged to our partners and dependent on them for getting access to their network. As a result, we had to temper our normative ideas about exploring other approaches to responsible research and innovation (RRI) than participatory approaches.

There is, however, an important difference between the two experiments. At the end of the DD experiment we had something to show for our time and energy, in the form of the diagnostic tool. This was because we managed, and circumstances allowed us, to create a semi-autonomous space for our theoretical research. Instead of performing as mediators for other parties' views and values, it was clear to all involved that we were working on a product that not all our collaborators would have to agree on, or that they would have to feel represented by. The diagnostic tool was the outcome of *our* thinking, and *we* were taking responsibility for it. It was not, nor did it pretend to be, democratically designed by the stakeholders. We were trying to interest other parties in the tool but we were not staking its fate on their support; so, we felt free to use their contributions as we saw fit. As we were aiming for a more general theoretical framework, we were less subject to the frantic pace or the agile approach of a lean start-up. The price we paid was that in the end the Current management deemed the diagnostic tool not directly relevant to their ongoing concerns. On the other hand, the conclusion is not completely bleak. It is exactly because the framework is general in character that it can be transferred to spaces outside Current and is of interest to other stakeholders. Other stakeholders, such as municipalities, NGOs, scientists, and companies have since expressed interest in the framework.<sup>8</sup>

## 4 Conclusion

What should the role of a philosopher be when collaborating with non-philosophers? That turned out to be the central question in our project. Our core finding is that field philosophers have to reflect on their rules of



engagement. It is quite rewarding for a field philosopher to work closely with non-philosophers on a project. However, it also comes with challenges, as one easily gets entangled in the norms, values, interests, and strategies of one's collaborators. The space for dialogically sorting out these rules of engagement together with practitioners may be greater in theory than in practice.

We wanted to develop and push a normative agenda, based on our understanding of the shortcomings of smart city innovation projects. Although these projects claimed to be for citizens, they had little to say in these projects. We wanted to develop conceptual tools and methodological approaches to empower citizens. To realize this aim, we experimented with three roles: the mediator, the Socratic questioner, and the 'demand-driven' theorist. Each came with its own affordances and constraints.

As a mediator one can perform an important role in bringing together various stakeholders. This matched with our normative agenda, as involving stakeholders is an important procedural innovation to make smart cities more democratic. On the other hand, if the dialogues cannot generate mutual understanding or collective decisions because the innovation process is too 'agile' and the entrepreneurs do not want to give up control over their product, it is questionable whether organizing stakeholder meetings is worth the effort. If the rules of engagement prohibit open, representative, and transparent stakeholder dialogues, being the mediator can devolve into playing an instrumental role for the more powerful stakeholders.

Our second role was that of disinterested Socratic philosopher who questions people on their ideas and beliefs in order to facilitate reflection. This role allowed us to remain true to the spirit of philosophy as a discipline that enhances (self-)reflection. Success is measured in terms of how much the philosopher has been able to stimulate reflection. To some extent this role matched our normative agenda, as enhancing reflexivity among technological innovators is a key element of field philosophy. The price paid here was that we had to abstain from defending a normative stance of our own. Such a normative coming-out would conflict with the impartiality that is a precondition of the role of Socratic questioner. This role does not require a commitment from the philosopher to the outcome. At the same time, it does not leave much room for pushing a more substantial normative agenda regarding the question of how the smart city can be democratized.

The third role we experimented with, the demand-driven theorist, did allow for the development of a normative, critical stance that matched our normative agenda. In this role the philosopher is an expert, though part of a team that works together to develop something. Here, the philosopher uses her theoretical concepts and tools to develop her part of the project that should be fitted to the rest of the project. This requires considerable commitment to the outcome of the project but creates more room for taking a normative stance. The price we paid to develop our theoretical framework was that we kept some distance



from our collaborators—though we stayed in touch through the case workshops and our regular contacts with our case manager at Current.

We learned that it is better to decide early on what role you want to take in a particular collaboration and to communicate that clearly in order to manage expectations about what you have to offer and what you need. If one wants to pursue a normative agenda of one's own but still be part of and engaged in practice, the philosopher should adopt the role of expert. This allows for a normative agenda. Being an expert in a collaboration, however, does not mean that you can retreat to the comfort of your study without interacting with people in the field. Rather, it requires continuous and interactive engagement in order to fine-tune your draft solutions to what people need.

## Notes

- 1 We want to thank the editors of this volume for their insightful remarks. This research was funded by the Netherlands Organisation for Scientific Research under Grant No. 313–99–308.
- 2 The name is fictitious.
- 3 The company does not produce or sell electricity; it just transports and distributes it across the electricity grid.
- 4 The name Datashare is fictitious.
- 5 In fact, we loosely reinvented an existing approach developed in the context of so-called Responsible Research and Innovation. The Socio-Technical Integration Research (STIR) proposes to stir, or “modulate,” the development of a technology “midstream” in its development by starting a dialogue between the sociohumanist and scientist, checking the grounds of the choices the latter is making in the lab (Fisher and Mahajan 2006; Fisher et al. 2006).
- 6 This is also a reason to be hesitant in encouraging graduate students to pursue this kind of project.
- 7 For anonymization reasons, we changed the title.
- 8 Before embarking on the project we had reached a formal agreement with Current that we would be allowed to publish our findings, on the condition that these were not harmful to Current. This is partly the reason that we chose to anonymize the companies that we collaborated with.

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# 17

## THE CUTTING EDGE

### A Surgical Case Study in Field Philosophy

*Jane Johnson*

#### 1 Introduction

Reframing a project on surgical innovation as an example of field philosophy has provided a fruitful way for us to think about our research. Using the lens of field philosophy furnishes a framework to better understand the challenges raised in our work, the lessons we learnt from our project, and how we could improve what we do in the future.

#### ***Background***

In the late 1990s DePuy Orthopaedics launched two new hip prostheses—the articular surface replacements (ASR) hips. Compared to their competitors these new devices promised smaller surgical incisions, reduced risk of fracture and dislocation, good positional sensitivity, and greater longevity. In fact, one of the prosthetics appeared so advantageous in terms of speedy recovery rates and greater mobility that it opened up a whole new cohort of potential recipients for whom new hips would not usually be considered, namely, young and active patients. However, in spite of their promise, problems quickly emerged with the ASR hips. They were implicated in localized and systemic health problems and needed to be replaced at a higher rate than other hips—apparently due to their design, which led to metal grinding on metal. Such grinding contributed to the erosion of the hip, leakage of cobalt and chromium ions, and toxicity. After a protracted campaign in which they denied problems with the hips, DePuy issued a world-wide recall of the ASR in 2010 (Johnson and Rogers 2014).

Innovations in surgery (including via the development of new devices and prostheses like hips) are vital to medical progress, contributing to increased



longevity and enhanced quality of life. Yet, despite this tremendous potential for good, the novel, unproven and frequently unregulated nature of surgical innovation generates significant risks of harm, as demonstrated in the case of the ASR hips. In recognition of troubling cases such as this one, the Australian Research Council funded a project, “On the cutting edge: promoting best practice in surgical innovation,” for three years beginning in 2012. In acknowledgment of the value philosophers could bring to conceptual analysis of the issues and their clear ethical dimensions, the bioethicist who led the project involved us from the start. Lawyers, surgeons, and a hospital manager were also part of the research team. This project formed part of ongoing work on surgical innovation centred at Macquarie University in Sydney, Australia. For the purposes of this chapter I will focus on our discrete project, rather than the larger research endeavor.

### ***The Project***

Our project was concerned with three main issues raised by surgical innovation: defining surgical innovation, the ethical challenges generated by innovative practice, and legal and regulatory dimensions.

With respect to definition, there is uncertainty as to what actually constitutes surgical innovation. Although there are clear cut cases (e.g., the first heart transplant), the territory quickly becomes murky when considering examples such as the first time a procedure is rolled out in hospital or with a new team, or when a piece of equipment is used for a different operation or a different type of patient. Depending on the details, any of these may constitute instances of surgical innovation. Finding a definition that captures and distinguishes all the relevant instances, and avoids including routine surgical variation of the kind that surgeons engage in all the time in response to differences between patients, was a crucial element of what we set out to achieve with our project. In the absence of a workable definition of surgical innovation, those charged with oversight struggle to identify the practices they are required to regulate.

We were also interested in the ethical issues raised by surgical innovation. In work leading up to this project we identified four types of ethical concern (Johnson et al. 2010). The first involved the possible harms to patients that may occur with surgery that is not well established in the profession (such as when there is a new hip prosthesis), or with surgeons new to a procedure and still scaling the learning curve. Second was the question of informed consent. Patient consent to surgery could be compromised as they may be inadequately informed about various elements of the procedure they are to undergo. For instance, patients may be unaware of the innovative nature of their operation and of the risks associated with new procedures. There could also be poor safety and efficacy data to inform their decision, and patients may not be cognizant of where their surgeon sits on the learning curve.



Third, there are various potential conflicts of interest, for surgeons, hospitals, and regulators, which may compromise surgical decision-making and risk harms to patients. For instance, surgeons involved in developing a new device may be over-inclusive in how they select patients to receive the device, and may prefer their own device over similar devices for no good clinical reason. And, finally, surgical innovations are frequently more expensive than standard treatments, so there are ethical issues over the just distribution of finite healthcare dollars. For example, in Australia, most prostatectomies are now done with the aid of a robot. Factoring in both capital and maintenance costs, robotic procedures are more expensive than an open prostatectomy, meaning less money is available for other procedures. Moreover, in order to remain safe and the best value for money, a sufficient volume of patients need to have the robotic procedure. In Australia, this means robots should be located in more densely populated urban areas. But this raises additional concerns regarding justice since in these areas both population health and access to healthcare are already better; indigenous populations and patients with lower socio-economic status are more likely to live in rural and remote regions (Hutchison et al. 2016).

Governance, oversight, legal, and regulatory issues are also a major concern in surgical innovation, and these are related to but distinct from the ethical concerns. Although, as philosophers, our primary focus was on ethical and definitional questions, our approach as field philosophers meant we were motivated to keep these practical constraints in mind too. On the whole, surgeons are resistant to regulatory oversight; moreover, due to the nature of surgical practice, it is a challenging area to regulate. Furthermore, in the case of surgical *innovation*, there is the additional complexity of its definitional imprecision, which undermines the capacity for innovation to actually be captured by regulation. The lawyers on our research team were primarily responsible for this dimension of our research so it will not be a focus of this chapter.

### ***Our Research Partners***

The Australian Research Council (ARC) has a nationally competitive government-funded scheme for *Linkage Projects* that encourages the development of relationships between academia and industry, aimed at addressing research questions of importance to the non-academic sector. Under the direction of Professor Wendy Rogers from Macquarie University in Sydney, our research team formed to develop a Linkage proposal. In addition to philosophers, this interdisciplinary team comprised surgeons, lawyers, and a hospital manager. The ethical and definitional challenges generated by surgical innovation articulated above were well established in the academic literature, such that the initial impetus for the project came from this source rather than direct engagement with stakeholders. However, our non-academic partners included a number of key stakeholders with whom these problems resonated.



We partnered with four organizations outside academia—Sydney West Area Health Service (SWAHS, which later became Western Sydney Local Health District),<sup>1</sup> The Royal Australasian College of Surgeons, via the Australian Safety and Efficacy Register for New Interventional Procedures–Surgical (ASERNIP-S),<sup>2</sup> Bellberry Limited,<sup>3</sup> and Houston Thomson Limited.<sup>4</sup> All of these partners joined the project with a capacity to contribute to the research as well as to benefit from the work. In total, our final research team comprised four non-academic partners, 11 Chief and Partner Investigators, a postdoctoral researcher, and a research assistant.

## 2 Why is This Field Philosophy?

Before delving into the challenges that arose as part of this project, I want to take a moment to discuss why our project constitutes field philosophy. I think this is important, given we were unaware of the concept of field philosophy when commencing our research and had not, therefore, intended or framed the project as an instance of it. If anything, we conceived of our project as one in bioethics.<sup>5</sup>

Frodeman and Briggie (2016) identify six elements they regard as central to what constitutes field philosophy. In brief, these have to do with its goals (being concerned with ‘real-world’ policy problems), the approach taken (case-based and driven by stakeholder problems), the audience to which the research is addressed (non-disciplinary stakeholders), its method (pluralistic, context sensitive and bottom-up), how research is evaluated (primarily by non-disciplinary metrics), and the institutional situation of the research (not only within the academy). As will become apparent below, much of our project can be characterized as field philosophy when assessed using these criteria.

Our research was clearly focused on probing the philosophical dimensions of so-called ‘real-world’ problems with policy implications, and so satisfied this fundamental criterion of field philosophy. Although our research had a case-based dimension, was motivated by stakeholder problems, and had as its main audience the various stakeholders involved in surgical innovation (such as surgeons, surgical teams, hospital managers, and so on), our approach and research questions were not identified and driven by those stakeholders involved in the research. Rather, the aims of our research emerged from engagement with the relevant professional literature in surgery and medicine.

As might be expected of a project in field philosophy, we used a variety of channels to connect with our non-disciplinary stakeholders, including targeted workshops, articles in professional venues such as practitioner and interest group newsletters, and also papers in prominent medical journals such as *The Lancet* and *Annals of Surgery* (Hutchison et al. 2015). The methods we adopted were suitably responsive and varied, designed to elicit information relevant to the project from different players in different contexts. For instance, we used



recorded interviews to secure the views of crucial players such as surgeons, nurses, and managers, and ran workshops with stakeholders and non-academic players to develop a sense of how problems and our solutions were perceived by various groups. We also embedded a postdoctoral philosopher at SWAHS with the intention of developing relationships and informal networks with key stakeholders, as well as securing a sense of how surgical innovation operated ‘on the ground.’

The project stands up to evaluation according to standard academic metrics (for instance, we won the 2015 Macquarie University Award for Excellence in Research—Resilient Societies), in addition to impact outside academia. Our findings have informed professional guidance of the Royal College of Surgeons of England, changes in international guidance on evaluating surgical innovations, revisions to Australian research ethics guidelines, and local health district practice. The Macquarie Surgical Innovation Identification Tool or MSIIT (a conceptual tool our team developed as part of the project to help healthcare professionals identify surgical innovation prospectively and trigger appropriate supports) has been piloted in two hospitals. Although our core research team is located within academia, our research partners include non-academic members and our team routinely engages with stakeholders outside the academy.

### 3 Key Challenges

Many of the key challenges and tensions that arose in our project had less to do with the project’s intellectual content (perhaps in part because we were more familiar with how to deal with these) and more to do with its nature as field philosophy. These challenges broadly fell into differences between academia and ‘industry’ over skill sets, expectations, norms, and ways of operating.

#### *Skills*

Already, in attempting to develop and fund our initial proposal, a number of fundamental challenges emerged, including the limited skill set of our team. Navigating and negotiating with organizations outside academia (whether public sector, charitable, or corporate) requires a skill set that diverges from that demanded of academics occupied with conventional research and teaching roles. Identifying, connecting, and communicating with people within organizations who were able to understand our research and who had the authority to formally support our project proved difficult. On occasion, we were unable to even penetrate the gate-keeping mechanisms of organizations in order to connect with appropriate personnel.<sup>6</sup> This was in spite of our confidence in the value of what we could offer such organizations and the potential for a productive synergy. And, on occasion, when we were actually able to arrange meetings with the relevant people, they turned out to be unable to understand the



rationale behind our research, or could not see its relevance for their organization. At other times we invested considerable time and effort persuading people within organizations about the value of our research, only to find out later that they were not the relevant contact person or decision-maker after all.

## ***Expectations***

Although we were fortunate as researchers that the goals of our project were not only practically important, but also philosophically rich (canvassing as it did new epistemological and ethical ground), there were nonetheless tensions generated by the different expectations of our partners and ourselves over the project's practical and philosophical dimensions. For those engaged in surgical work (whether as surgeons, nurses, or hospital managers), their interest in the research was primarily pragmatic. They were, quite understandably, concerned with what difference it might make to their day-to-day practice. For instance, at one hospital workshop we ran, it became apparent that some clinicians in attendance could not see the value of our attempts to grapple with a definition of surgical innovation. (After all, what difference could a definition possibly make to practice?) Rather, they were focused on the essential business of 'getting the job done' and considered that their skills were such that they could deliver good patient outcomes regardless of whether they were engaged with routine or innovative surgery. And anyway, it was not the place of academics (particularly philosophers!) to give them direction. However, although questions of definition may not have been important for these particular medical practitioners, they are critical for other stakeholders. For example, determining the nature and boundaries of the practice of surgical innovation is crucial for hospital managers who need to establish appropriate and specific oversight related to this practice. When it came to broader questions about social justice in healthcare spending, these were sometimes regarded by our non-academic partners as too esoteric or at least not within their remit or area of responsibility.

As researchers, we need to balance our partner's expectations of practical and tangible outcomes with our own expectations and those of our academic institutions. As academics, we need to ensure we secure peer-reviewed publications within our own discipline, not just in professional journals, even if they are highly prestigious titles such as *The Lancet* or *Annals of Surgery*. Furthermore, in philosophy, multi-author publications are unusual, whereas in bioethics and surgery they are the norm. Career progress in most philosophy departments requires regular and sustained output in well-regarded disciplinary venues, and the bulk of one's CV should be made up of sole-authored publications.

Part of a philosopher's role is to scope out new ground and to pose questions for which there may be no obvious or immediate answer. To practitioners focused on clear and deliverable outcomes this may seem perverse or even a futile waste of time and money. For example, in our project we have identified



conflicts of interest, some of which might seem pointless to explore since they are very difficult to identify or hard to remedy. There can be a conflict of interest, for instance, when the primary surgical interest to ensure good patient outcomes is in tension with another primary interest, namely, to innovate (given the nature of surgery, we argue that engaging in innovation is part of being a good surgeon) (Rogers and Johnson 2013). This is because innovation can be motivated by self-fulfillment, peer esteem, a desire to advance medicine, and so on, in ways that may compromise patient wellbeing (Johnson and Rogers 2014). In reality, however, it is simply not possible to know for certain what motivates an individual surgeon, and so the conflict of interest may go unrecognized. Furthermore, some of our findings are suggestive of changes to practice that may be deemed unrealistic. For example, one means of countering surgeon bias and certain conflicts of interest is for patients to seek second opinions, particularly when new devices are being used. However, it may not be possible to identify unbiased surgeons to give these second opinions, since many have relationships with device manufacturers or are biased by personal experience and preferences. In Australia, second and third opinions are also not the norm for surgery and would place a significant financial burden on patients.

### ***Norms and Ways of Operating***

As philosophers accustomed to undertaking research in a particular way, we established a number of critical parameters for our project early on, some of which generated difficulties when seeking out potential partners. Our review of the literature helped us identify the epistemological, ethical, and legal/regulatory challenges which formed the basis of our research questions. While there was some scope to shape the research to be responsive to the needs of research partners in ways we had not already anticipated, the amount of flexibility was constrained. Thus, when we approached partners it needed to be the case that their interests aligned with the framework we had already established, and this precluded us from developing a partnership with some organizations. For example, a government body we met with was interested in innovation in surgery, but as it pertained to the implementation of innovation across health-care systems. This was not something captured by our project, nor could it be appended straightforwardly to our work. Other potential partners were concerned with questions that had a very specific and narrow focus relevant to their situation and organization. Taking up these questions would have limited the broader applicability and capacity to generalize from our research in ways which we did not find palatable at the time.

Our choice of potential partners was also restricted by a principled decision we made when developing the project; namely, there was a large cohort of possible partners we did not approach because of their capacity to adversely impact the way our research was carried out and received. For instance, although they



could have furnished substantial research income, we avoided seeking support from device manufacturers and biotechnology companies, as these could present significant (perceived or real) conflicts of interest with a potential to skew research findings and undermine the credibility of the project's results.

Academic culture differs from a more corporate non-academic culture in ways that make the latter difficult for academics to navigate. This can have an impact on the results of research, in addition to whether or not the research can in fact be undertaken at all. For our postdoctoral researcher embedded at Westmead Hospital, the difference in workplace culture represented a tangible challenge. In a presentation about her role she discussed her fears in these terms: "I didn't really know whether or how I could make the transition from sitting in my office wearing any old thing, cultivating eccentricity and reading about free will, to the scary corporate world of hospital management" (Hutchison and Rogers 2014). In order to be effective in her role she needed to gain trust and credibility with her new colleagues, and this involved understanding and fitting into their workplace. Among other things (such as knowing what to wear!) this meant adapting to an environment in which there was a greater respect for hierarchies and deference to authority than in Australian academia. There were also linguistic barriers, so that she needed to quickly become fluent in the use of particular acronyms and the peculiar jargon of surgery and healthcare more generally.

In fact, communication in general presented a challenge for our team, given the differences in methods, audiences, and even content relevant to academic and corporate/stakeholder realms. The standard methods of academic discourse involve conference and journal papers targeted at one's peers and focused on providing a convincing argument for a particular position. When dealing with our partners, however, our communication needed to be succinct, accessible, engaging, and to focus on the tangible outcomes of the project in terms of its headlines or main points, rather than the evidence and arguments to substantiate these points.<sup>7</sup> We found ourselves writing newsletters for our partners, contributing to industry bulletins, speaking at business breakfasts, presenting at medical grand rounds, and running stakeholder workshops. Again, these forms of communication demanded a skill set outside the norm for philosophers.

Communication within the team was also an issue, given the disciplinarily diverse and relatively large group (11 Chief and Partner Investigators, a postdoc and a research assistant). Keeping track of what all members of the team were doing needed conscientious management, and we employed a project management software tool, Basecamp, to help support this. We used the tool to share important documents; post meeting minutes; link to internet sources; store contact details and mailing lists; load copies of conference abstracts, publications, and our newsletter to partners; and generally keep each other updated about project developments.

In fact, these kinds of issues around communication within the team spoke to a broader hurdle we encountered concerning the logistics of running a



project of this kind, which was new to most of us on the team. Unlike those in the sciences and even in other areas of the humanities, philosophers in the academy are not generally accustomed to operating as part of large multidisciplinary teams, as was certainly the case for the philosophers on this project. Fortunately, our project leader was from a medical and bioethics background and familiar with working in groups and across disciplines, and our research assistant had worked in the corporate world previously (in addition to being extremely competent and organized!). To help ensure we covered the ground described in our funding proposal, we identified four streams or working groups which covered our project goals. There was a taxonomy group concerned with questions of definition, a qualitative research group to oversee the development and analysis of the interviews, as well as an ethics group and a legal/regulatory group. Each of us joined those groups that were of interest to us and appointed stream leaders. This proved to be a highly effective method of dividing up the work and ensuring responsibility and accountability for the research.

Another logistic issue had to do with managing the timescales involved in grant-funded philosophical research, which are often longer and potentially more uncertain than those in non-academic settings. For our partners, there was a significant lapse of time between our discussing the research with them, their agreeing to come on board as a partner, and the funding decision being made. Much can happen in this time, and in our case this included one of our partners being legislated out of existence by government, and the loss of one of our Partner Investigators who chose to bring forward her retirement. Before the award of funding, the New South Wales State Government dissolved SWAHS and replaced it with two Local Health Districts. This meant we were forced to negotiate with new people and organizations to try to secure an agreement to uphold the earlier arrangement. We were fortunate that one of the two Health Districts eventually agreed to come on board so that Western Sydney Local Health District became our new partner. This set in train a whole new sequence of paperwork on which all the team (11 Chief/Partner Investigators and five Partner Organizations) in addition to the funder (the ARC) were required to sign off.

We were fortunate that our grant was funded first time round, thereby compressing the timescales, since it is not uncommon for grants to be successful only after being submitted multiple times. In spite of receiving funding on the first attempt, there was still a lag of seven months between the decision and the funding beginning to flow. Since field philosophy prioritizes working with non-academic partners, the mismatch between the timeframe of business and government and the timeframe of academic research may present an obstacle to achieving optimum results.



## 4 Lessons Learned

The project taught us lessons both about what worked and what failed to work when engaging in this type of research. One valuable and productive insight, particularly for me, was to reconceptualize and rethink our project as field philosophy. As observed earlier, we were unfamiliar with this concept when the project began: it was only in talking with a colleague at a conference about the nature of our research that he mentioned that perhaps what we were engaged in was field philosophy. Since that time I have found the concept invaluable in thinking about myself as a researcher and articulating what I do to others, both in and outside academia. For me, it provides a conceptual tool for how I frame my work. I have also introduced the idea of field philosophy into a Capstone unit I teach philosophy majors. The idea resonates with students keen to deploy their philosophical skills in their lives outside the academy.

Returning to our project, realizing there was a gap in our skill set regarding how to identify potential partners and pitch the value of philosophy was an important insight for those of us who wish to continue to engage in field philosophy. As to what could be done to remedy this in the future, a number of options are apparent. Members of the team could actively seek to improve their skills in this respect, perhaps through training, although these skills will likely improve anyway with more experience in this kind of research. We could also be more strategic in approaching others within the university who are more familiar with packaging information for presentation to these audiences. We did this to some extent on this project by consulting with relevant people to help identify potential partners and, after the project was funded, we accessed assistance from marketing in producing professional promotional materials for the project. However, it might have been productive to have people with sales and negotiating skills actually sit in on meetings. Another way of addressing this skills deficit would be to establish, foster, and nurture long-term alliances with people and organizations with whom we were likely to share research interests. We could also seek to establish a reputation as field philosophers so that parties outside academia might approach us with research problems, or we might encourage professional organizations to promote and publicize how philosophy is relevant to real-world problem-solving in their domain of interest.

On balance, I think we managed the differing expectations of our stakeholder partners and institutional masters well. What we will do more of in the future, however, is to be more acutely aware of differences in the interest and relevance of various elements of our research to different groups, and to be more selective in what we disclose to different audiences. For example, although interviewing surgeons to ascertain their views about what constituted surgical innovation was productive, attempting to work out our definition with this group proved to be less fruitful and met with resistance. Hospital managers and medical insurers were the parties for whom these definitions mattered most,



since knowing when innovation is occurring can help trigger appropriate oversight. So, for instance, we may have been better simply presenting the MSIIT tool to these groups for evaluation and further input, rather than trying to engage surgeons directly in discussions about defining surgical innovation.

For the project to be successful (and to count as field philosophy), we needed to deliver on practical outcomes for our stakeholder partners. One of the successes of the project was how productive we were in meeting these goals as well as standard academic outputs. This was due in no small part to the organization and management skills of our team leader and research assistant, as well as the way in which a large workload was divided among self-managing streams. But it needs to be acknowledged that delivering empirically robust practical outputs takes time away from activities that enable us to perform according to more standard academic metrics that are important for career progression and, in the Australian context, for how governments evaluate and disperse some funding to universities. These metrics, however, are currently in flux in ways that may be productive for field philosophers. Macquarie University, for instance, now assesses applicants for promotion on two new parameters—integration and application—with integration intended to encourage and reward interdisciplinarity, and application concerned with focusing on activities that link academia with industry, government, and community. At the same time, the government's new research evaluation framework, Excellence in Research for Australia (ERA), includes sections on impact and engagement outside the academy.

In terms of how to develop this kind of project in the future, we could learn much from a field philosopher's handbook. Having already established many of the key parameters for our research prior to approaching stakeholders placed significant constraints on our project. In an ideal world it would have been much better to have the time and intellectual space in which to build relationships from which mutually beneficial research questions might more naturally emerge. To do this, however, would require support from our institutions and a preparedness to 'play the long game.' If we were to engage in such relationship building we (and our institutions) would need to be cognizant of the fact that the turnover of personnel within organizations (either to another role or leaving the business entirely) may mean efforts expended on building relationships may not deliver the desired results. In fact, in addition to not being aware of historical relationships and projects, when personnel assume a new role they sometimes actively seek to forge fresh relationships and pursue their own projects.

This project reinforced to us the importance of being amenable to engagement with stakeholders and industry on their terms, to an extent. If research with practical aspirations is to be successful, at least some portion of a research team needs to be open, as our postdoctoral researcher was, to understanding and fitting in with how different workplaces function. Particularly important in our case was learning to speak the language of surgery and healthcare, and to be



comfortable and familiar with that language and its acronyms, as well as common cases that were likely to be discussed. Being fluent in the requisite jargon enables one to fit in more easily, to be spoken to as a peer, and to have one's credibility less open to challenge. This kind of knowledge also enables greater insight into problems faced and how these are viewed and prioritized by stakeholders.

## 5 Conclusion

Philosophers are notorious for not engaging with the so-called 'real world.' As Lori Gruen (2015, p. 8) claims with respect to ethics, philosophers prefer to "set complexity aside" since it has the potential to undermine the strength of ethical arguments "based on abstract, universal principles deduced through careful, albeit detached reasoning." Miranda Fricker (2007, p. vii) makes a similar point suggesting that as philosophers "are very keen to understand what it is to get things right," they can tend to focus on "rational idealizations of human beings and their activities." Like Gruen and Fricker, I think there is much that is missed in this kind of philosophy. While there are many worthy abstract and highly theoretical philosophical projects, it can be especially galling when philosophers do practical ethics in a way that appears remote from reality. As our project highlights, the challenges to going beyond the traditional confines of philosophy (at least, as generally construed) in the pursuit of field philosophy are real and not always easy to overcome. But the upsides of doing this kind of work are real, too. The benefits of engaging with authentic practical problems and delivering results that can genuinely improve practice are significant and highly rewarding.

## Notes

- 1 In the Australian state of New South Wales, Health Services (these later became Health Districts) have responsibility for the provision of state government funded public health services in a particular geographic location. In the case of our partner, this included an important teaching and referral hospital with a reputation for innovation at Westmead in Western Sydney.
- 2 ASERNIP-S's mission is to provide quality and timely assessments of new and emerging surgical technologies and techniques.
- 3 Bellbery Limited are a company who manage human research ethics review in the private sector.
- 4 Houston Thomson Limited are a provider of consultancy services in human research ethics.
- 5 In fact, as practiced in Australia, bioethics might be productively thought of as a kind of field philosophy in a way that may not hold in the United States. Australian bioethics is generally interdisciplinary, avoiding "disciplinary capture" as Frodeman et al. (2012) claim with respect to bioethics in the United States. A major point of difference, however, is that Australian bioethics has never been in the (arguably unhelpful) thrall of the theory of principlism (Frodeman et al. 2012).



- 6 I have chosen to frame the points here in general terms rather than name the various people and organizations we contacted to avoid potential embarrassment or the compromising of future research opportunities.
- 7 This is not just an issue of communication; it points to differences in how philosophy as opposed to government, industry, etc. operate. Philosophy goes deeper into issues than might be demanded in these areas. An important part of the business of philosophy is to shore up claims, to make its points and arguments relatively bulletproof. Other philosophers, but not necessarily stakeholders, may need the in-depth arguments to persuade them of the veracity and robustness of the claims made.

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# 18

## ADVOCATING FOR HUMAN TRAFFICKING VICTIMS

*Roksana Alavi*

### Introduction

Field philosophy endorses developing relationships between philosophers and non-academic communities, and, specifically, it raises opportunities for connecting academic interests with civic responsibilities. Academic training does not typically address questions about how to engage with ethical decision-making outside of the university, and yet our skills and knowledge are relevant to many civic issues. My philosophical education did not prepare me to address the practical implications of ethical decisions or to answer fundamental questions about identity and agency in contexts that real people face every day. This is contrary to what we read in every introductory philosophy textbook that addresses questions of the good life, morality, obligations to others, and the individual's role in society. If these are the most important issues to teach students in an introductory course—which is likely to be the only formal interaction they'll ever have with philosophy—we should take them seriously throughout our academic practice.

Either the “real-world questions” are not important issues to explore, or philosophy should work its way back to the field of real-life decision-making. If the latter is the case, then we are doing our students a disservice by not introducing them to field philosophy. For we *do* believe these questions are essential. But we are not given the training, tools, or incentives to take our expertise out into the world. These uncharted territories are unpredictable, but we didn't choose philosophy because it was predictable: “Field philosophers emphasize the messiness and open-endedness of philosophic work, where thinking gropes in the dark. We must be ready to turn this way or that on encountering unexpected obstacles and opportunities” (Frodeman et al. 2012, p. 324).



This has been my experience working in the field of human trafficking. My path to advocating for human trafficking victims involved a significant learning curve. In the early 2000s, I came across Kevin Bales' *Disposable People* (2004) and learned about what Bales refers to as "modern day slavery." His book presents a challenge: if you have ever asked yourself what you would have done during the intercontinental slave trade, you can answer that now by considering what you are doing to eradicate current day human trafficking. I asked myself that question and felt obligated to take action. I found that in spite of my professional training in ethics, I didn't know where to start. I began to educate myself about the issues and made connections in the community with people who worked in the field of human trafficking. I didn't exactly know what my goal was, but I knew that, given my privileged place in the community, I had a civic and professional duty to act.

In this chapter, I discuss my experiences working in the area of human trafficking as an academically trained philosopher. I trace how engaging with the human trafficking crisis has affected my research and how philosophical training allows me to make a unique contribution. Although empirical social research may seem the standard form of knowledge needed to solve social problems, philosophers can contribute by analyzing, discussing, and engaging. These are things we are good at doing professionally, and we can use those skills to engage with issues outside academia. We have the ability to address contemporary social problems, both through research in applied ethics and by means of engagement that is more direct than applied philosophy.

Applied philosophy involves applying disciplinary frameworks and distinctions to evaluate solutions to practical problems. Field philosophy diverges further from established disciplinary frameworks; it starts with a problem, and works with non-philosophy practitioners to achieve the desired goal (Frodeman et al. 2012, p. 325). It involves a significant amount of learning, commitment, and patience. The duty falls on us to demand that our professional norms make meeting our civic obligations possible.

## How I Came to Work on Human Trafficking

I spent my early years in Iran, where I was raised by parents who extended support to those in less socially, politically, personally, or economically fortunate situations. My family immigrated to the United States when I was in my teens. I grew up in a family with more socially inclusive beliefs and attitudes than many in Iran at that time. Kant's universal value for human dignity and integrity was a core moral principle instilled in me long before I formally studied philosophy.

During my graduate studies in Philosophy and Women Studies at the University of Kansas, I took a course on Women and Violence, taught by a psychology professor. That class introduced me to the pressing social issues of



sexual assault and domestic violence, and it also raised deep philosophical questions. These were not simple ethical questions—since it is obvious that intimate partner violence and family violence are morally wrong. These social issues raise complex ethical considerations about victims' identity and agency, about the nature of psychological trauma that leaves no physical scars, and about the continuation of domestic violence in a well-off, democratic society that recognizes women's rights.

However, I did not draw explicitly on what I learned in those, and related Women's Studies classes, until I began my teaching position in Philosophy at South Texas College (STC) in 2006. At that time, I contributed to the Women's Studies committee organizing a conference on human trafficking. The interdisciplinary nature of the conference brought different groups and perspectives together, including not just members of the college, but also professionals and community members. Conference organizing while at STC widened my perspective on how philosophical issues are expressed and handled outside our disciplinary framework. Conference organizing is a common academic function, and not itself philosophical fieldwork, but it was a valuable step toward doing fieldwork because it introduced me to networking outside my department and to seeing how social problems fit into a structure that includes interlocking social systems.

After six years in Texas, life events brought me to Oklahoma City, where I taught online courses and pursued further education about domestic violence and sexual abuse. My initial interest was personal, social, and political, but not professional. As a feminist immigrant woman of color and a survivor of attempted sexual assault, addressing violence against women was essential to my sense of self as a citizen. The web of experiences and identities that I embody moved my sense of civic responsibility. I felt that my privileged position in the community as an educated woman, and my ability to contribute my specific skills and knowledge, compelled me to take an active part in local efforts to support survivors of violence. I took a 30-hour crisis response training course organized by the Attorney General's office and offered by the YWCA in order to train as a community member who can be called on in times of crisis to assist victims of violence.<sup>1</sup>

After a year, I began a full-time faculty position at the University of Oklahoma in Norman. This is where my personal civic commitments became integrated with my professional life, and I moved from involvement with issues of domestic violence to those of human trafficking. These two social problems have different causes, and victims of human trafficking have different needs than victims of domestic violence, but the victim-centered response strategy is similar. I helped students organize conferences on the issue of human trafficking, started teaching courses on human trafficking, and for two years chaired a multidisciplinary committee on human trafficking research. The research committee did not result in any publications of my own, unfortunately, but it



educated me on how other disciplines engage with this issue and gave me a better understanding of empirical research methods and how they can be used to illuminate hidden crimes and the experiences of victims. I became convinced that multidisciplinary collaboration is the key to understanding and solving complex social issues.

Human trafficking is a multifaceted crime. It affects the victims physically, emotionally, and financially, and is also hard to detect. The victims do not live isolated lives. They are individuals who have a history, families, hopes, and dreams. They occupy differing socioeconomic and political locations, and come from different demographics. Their victimization is due to a web of factors and not a single cause. As Audre Lorde puts it, “There is no such thing as a single-issue struggle because we do not live single-issue lives” (Lorde 1982).

Human trafficking requires multidisciplinary and multi-agency responses. The Attorney General’s office in the state of Oklahoma formed a taskforce on human trafficking to bring different agencies and service providers together to find a solution. A colleague’s spouse, who was at that time the director of sexual assault prevention for the state, connected me to the committee, and I was invited to join. I have served on the Oklahoma Attorney General’s Office Taskforce on Human Trafficking for over four years. Most taskforce members engage in direct care, and the taskforce is predominately made up of direct care providers—individuals from state law enforcement agencies, medical staff, and attorneys—but it also includes a handful of academics, including me.

Candidly, I initially felt ill-prepared to engage with practitioners and to offer advice on policy. Graduate school in philosophy did not prepare me to deal with issues at a practical level. Although my doctoral dissertation focused on race and oppression, it was my education in Women’s Studies, my training as a civic volunteer, and my experience as an educator that were most relevant when I first joined the taskforce. It took me some time to see how my philosophical insights could be communicated to others on the taskforce such that they would connect to practice.

I had two goals when I joined this committee: (1) to improve services for survivors, and (2) to prevent victimization. Considering that I was not a counselor or law enforcement official, direct care seemed out of my reach. Additionally, I did not possess the tools to conduct empirical research. So, it seemed that my major contribution would be in improving our understanding of how victimization happens in order to prevent it.

## Human Trafficking as a Social Issue

Human trafficking has increased tremendously since the inception of the global market economy (Kara 2009). This increase has been the direct consequence of globalization coupled with poverty, gender bias, and ethnic



differences. Globalization opened the gates for free trade, including the illegal trade of humans. In 2001, the United States passed the first human trafficking law, the Trafficking of Victims Protections Act (TVPA). Human trafficking is defined by the United States and the United Nations' Protocol on Human Trafficking as follows:

“Trafficking in persons” shall mean the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.

*(Office of the United Nations High Commissioner for Human Rights, 2000, Article 3a)*

Analyzing the definition of human trafficking, as well as the social structures that maintain it and the policies that address it, is important work for ethicists. From Kantian ideas about human dignity and autonomy, to Iris Marion Young's (1988) discussion of exploitation as a “face” of oppression, to Susan Brison's (2003) view of agency as the continuation of one's narrative after the disruption of sexual assault, to Ann Cudd's (2006) overarching theory of oppression, philosophers have had something to say about all the definitional components of human trafficking. Philosophers should also examine how race, the commodification of bodies, exploitation, and gender violence contribute to the experiences of human trafficking victims (Davis 1981; Crenshaw 1994; Collins 2008).

However, being engaged in this issue as a philosopher means much more than examining concepts and the fundamental reasons why human trafficking is immoral and unjust. Although, as a philosopher, I can contribute conceptual analysis and apply ethical frameworks, when working with victims, practitioners, and the public, I also contribute my skill as an educator. This does not always mean analyzing the deepest sources of human dignity—it may also mean contributing to solving problems about how the state administers its human services.

Moreover, there is significant philosophical depth in the question of which cases involve human trafficking, and issues of agency and identity contribute to the murkiness in identifying the victims of trafficking. Indeed, the philosophical problems related to human trafficking go beyond ethics to include the metaphysics of agency, philosophy of psychology, political philosophy, and many others. The contribution of philosophers to identifying the causes, structures,



and implications of human trafficking, and how human trafficking intersects economic and social systems, is relevant to the TVPA's mandate to address human trafficking in a comprehensive way.

The TVPA recommended that three areas be addressed: Prosecution, Protection, and Prevention (US Department of State, 2000). This is sometimes referred to as the "3P Paradigm." The US Department of State's Office to Monitor and Combat Trafficking in Persons (TIP Office) recommended a fourth "P"—Partnership—which "serves as a complementary means to achieve progress across the 3Ps and enlist all segments of society in the fight against modern slavery" (US Department of State 2000).

**Prosecution** and **Protection** involve coordinating effective criminal justice responses, including proper legislation and resources for investigation. The Palermo Protocol proposed by the Office of the United Nations High Commissioner for Human Rights adds the needs of victims, advocating for their protection with "full respect for their human rights" (Office of the United Nations High Commissioner for Human Rights, 2000). It addresses the importance of having a victim-centered approach in working with victims of human trafficking. This requires the assistance of advocates, NGOs, and healthcare providers, as well as a commitment to the healing process of victims, which can take years (Clawson et al. 2008).

**Prevention** tackles human trafficking by addressing social issues that leave people vulnerable. Reaching out to at-risk communities is one way to prevent victimization. Among the ways that we can help address vulnerable populations is **Partnership** with their communities: investing in children and youth, especially those who are at risk; supporting adults to find jobs and to meet basic needs for themselves and their children; fundraising for local programs and creating programs for inmates to transition back to society.<sup>2</sup>

As an educator, my involvement has been mostly on the prevention side of the 4P paradigm, but it has become evident to me that there is much more that I could be doing. The next section outlines my activities engaging the community and my ideas for extending my engagement.

## Outreach as a Form of Fieldwork

Briggle and Frodeman (2016, p. 36) characterize field philosophy as operating "at the meso level—at the level of the project, where philosophers work over the long term with scientists, engineers, and policy makers." They do not consider public writing and speaking—the activity of public intellectuals—to be a form of field philosophy. They argue that the distinction between public philosophy and field philosophy is that while public intellectuals speak *to* the public and emphasize their own intellectual expertise, fieldwork engages *with* practitioners and publics in inquiry in a way that builds solutions from the bottom up. Fieldwork is therefore *not* a top-down relationship in which



philosophers simply offer their own versions of analytic, critical, and conceptual tools to the groups with whom they work.

However, I would argue that Frodeman and Briggie have framed a false dichotomy and have an oversimplified account of how the practices of public philosophy fit with philosophical fieldwork. My own experience has been that non-academic educational lectures, when embedded in a larger context of engagement, are best understood as a form of field philosophy. Public lectures can be presented in collaboration with community stakeholders in order to advocate for effective change through policymakers, to prime discussion among physicians, law enforcement, and other practitioners about ethics, and to provide a venue for initiating or deepening relationships. An example is the interim committee on human trafficking that Representative Pam Peterson set up in 2012 and to which law enforcement officers, lawmakers, and women's coalition members were invited to attend. She wanted to hear the facts and brainstorm with stakeholders in order to decide on legislation. Soon after, the state of Oklahoma passed more policies on human trafficking.

My primary form of engagement on the issue of human trafficking has been to give lectures to local groups and organizations. I have spoken to groups with participants from churches, youth camps, senior citizens' groups, a writers' guild, the Oklahoma Department of Human Services, the Oklahoma Social Security office, medical and law schools, and people who investigate financial fraud. Such lectures raise community awareness about the complex ethical and policy issues concerning human trafficking, and each talk is tailored to the group's needs. Some use the information to change their practices or make adjustments. My aim is to empower the audience to become watchful citizens and create effective change in their organizations. The result of this sort of work can only be seen over the long term. In my personal connections with others, I have heard that the conversation around human trafficking is increasing. Individual education and awareness is necessary to bring about awareness and change in one's community.

In my talks, I also try to stimulate consideration of the idea of freedom. People typically think of images of human trafficking victims who are in physical bondage. Since most are not in physical bondage (unlike their media representations), the idea of mental bondage has to be discussed, evaluated, and understood. Otherwise, victims who are not in shackles or tied up are falsely considered to be free and, hence, liable to be treated as criminals (especially in states where prostitution is illegal); in this way, they are revictimized. My technique engages in field philosophy by inviting audiences to a deeper consideration of ideas of choice and freedom so they can recognize that physical freedom is not the only indicator of freedom. I have found this to be quite eye-opening for the general public.

Having wide experience teaching philosophy to different types of students—from middle school to non-traditional college students and from a liberal arts



college to a university setting—was helpful in shaping my judgment about how best to reach out to radically varied audiences. My training in philosophy prepared me to lead dialogue on really difficult issues that most people prefer to avoid. Although I initially prepared myself for research in the philosophy of race, I have found that a key philosophical skill is to identify how core concepts such as choice and autonomy become manifest in different issues. Philosophers also share an understanding that posing difficult questions is not meant just to tear down others' beliefs; rather, they are used to expose shared, often hidden, assumptions, and to build up theoretical understanding.

With that in mind, asking hard questions has led me to expand my understanding and to invite those I speak with to follow this path of inquiry. I have often felt challenged presenting on sex work and sex slavery to non-academic audiences. This is especially true when audiences are reluctant to relinquish prior assumptions or change their views. For example, it is difficult for many audiences to see a relevant distinction between willing sex workers and those who are trafficked. In one memorable case, a person who gave direct care to human trafficking victims believed that no one voluntarily participates in sex work, which supports the belief that everyone who has worked in the industry is a victim. This is not the case. People get into sex work for many different reasons. Additionally, by speaking to groups of professionals and policymakers, I encourage reflection on policy and implementation. This affects how law enforcement responds to victims, as well as how resources are distributed. Social analysis provides concepts for policymakers to think about the future implications of legislation, how laws are enforced, and how victims are treated.

## Oklahoma Attorney General's Task Force on Human Trafficking

Early in the Obama administration, the Interagency Task Force to Monitor and Combat Trafficking in Persons was formed to find a comprehensive solution that could combat human trafficking. The result was a five-year plan titled *Coordination, Collaboration, Capacity: Federal Strategic Action Plan on Services for Victims of Human Trafficking in the United States 2013–2017* (Office for Victims of Crime 2014). I was one of about 350 citizens and practitioners who attended a meeting alongside federal, state, and local agencies to coordinate data collection, policy development, and services coordination on the issue of human trafficking. The action plan that resulted was a collaboration among government agencies, tribal representatives, NGOs, law enforcement, medical staff, practitioners, administrators, educators, church communities, and other experts in the field of human trafficking. The committee's goal was to develop state-based task forces to investigate and prosecute traffickers, support trafficking victims, and increase public awareness of the problem (Office for Victims of Crime 2014).

My participation in the task force on addressing human trafficking in Oklahoma began in May 2014, in response to the Federal Task Force. My



involvement with the task force, run through the Attorney General's office, has included assisting with event planning for conferences, as well as serving on an education subcommittee that has designed presentation materials for use by trainers for public education purposes. I worked on modules aimed at professionals likely to come into contact with victims, such as schoolteachers, medical staff, law enforcement officers, social workers, and lawyers, and on modules addressing ethical issues in therapy and cultural differences that might impede communication. My philosophical expertise helped with framing clear definitions and exploring the implications of ethical assumptions that affect how professionals relate to victims. My aim was to help with the expression of concepts of autonomy and choice in ways that will lessen the possibility that those who come in contact with victims will unintentionally revictimize or disempower them.

Although I have only been working on the task force and with practitioners for a few years, I see an urgent need for philosophers to contribute to community dialogue, professional training, and the formation of policy. First, the discussion of relevant ethical concepts in the philosophical literature, such as choice, autonomy, and agency, is far ahead of the uptake and implementation of these concepts by law enforcement and service providers. As mentioned above, philosophers can do translational work to demonstrate the value of these concepts in criminal justice contexts. NGOs are sometimes unaware of the difference between women who choose to engage in sex work, even where it is illegal, and victims of sex trafficking who are coerced, manipulated, or trapped. The former might not need or want to be "rescued," and "rescuing" her will only displace her, stress her home life, uproot her community connections, and waste limited resources that could benefit someone else. Likewise, when religiously-affiliated NGOs express an expectation that human trafficking victims will participate in religious services, this may amplify their earlier loss of autonomy, triggering the sense of helplessness they felt while they were being trafficked.

Second, local law enforcement officers are an important source of community knowledge about human trafficking because they come into contact with both victims and traffickers. I have invited law enforcement officers to my classes and to speak at inter- and transdisciplinary conferences, and they are able to provide first-person insight to the public about victims, pimps, sex work clients, the court system, and prisons. However, I have found that some individuals in law enforcement participate in a culture that carries implicit biases related to race, and there is a danger of perpetuating racist stereotypes of both traffickers and victims. Changing a culture is a long process, but honest, open conversations about implicit bias and racial stereotypes is relevant when using ethical theory to enact positive social change.

Finally, the issue of human trafficking is tied up with other social issues, such as the legal status of prostitution. Applied philosophers have examined the



ethical and legal implications of sex work and prostitution for decades, but there is more conceptual work to be done in examining how the ethical implications of banning or permitting sex work change as socioeconomic systems, immigration laws, labor practices, and global trafficking routes themselves change. The conceptual work of applied ethicists intersects with policy—because policy is often crafted to eliminate the worst harms or to simplify conceptual complexities. For instance, since prostitution is illegal in Oklahoma, care workers and service providers often assume that all sex workers are victims of sex trafficking, and hence are forced to break the law or else have criminal intent. This creates a policy context in which people in the sex trade are either victims or perpetrators; however, such a simplified policy context overlooks complex behaviors and how a single individual's roles, strategies, and motivations may change over time. I have discussed this with law enforcement and service providers to address the significant differences between these two populations.

Along with others, I advocate that those who support former sex workers should adopt a victim-centered approach. Even law enforcement agencies are recognizing the benefits of adopting an attitude of victim advocacy when dealing with victims of sexual violence. Threatening sex workers or sex trafficking victims does not help law enforcement build a case against pimps or traffickers, which is their main goal. Although their usual motive has been to build a case for arrest (to protect the larger community), at least some are aware of the value of building trust in law enforcement among former and current sex workers. In Oklahoma, a law enforcement victim advocate can help victims with the process of purging prostitution charges or convictions from their criminal record if they can show that they are adult victims of sex trafficking, have been prostituted since they were under the age of 18, or were teenagers at the time of first arrest (NewsOK 2013). These services are often unknown to victims.

## **Philosophy and Advocacy: The Obligation to Become Socially Engaged**

Philosophy is in danger of becoming irrelevant to non-specialists. While it may be an essential part of a classical liberal arts education, there is some evidence that enrollment in philosophy majors is dropping while enrollment in professional programs is rising. In part, this is because the public does not see that philosophical questions arise in and guide our everyday personal lives as well as our social and political interactions. Field philosophy is one response that academic philosophers can make to this obscuring of the role of philosophy in contemporary public life. We should take our knowledge to the public, not wait for them to come to us. This means, first of all, engaging in public forms of teaching outside of universities as public philosophers. But it also means creating effective change through engagement with professionals and policymakers.



The traditional mode of academic work fits a neoliberal model: philosophical activity is individualistic, non-empirical, self-gratifying, and, for the most part, not directed toward the common good. Methods for doing public and field philosophy are new, and they challenge the norms of the discipline. In addition, incentives between universities and researchers are not perfectly aligned. Universities would like researchers to have public impact, but public work carries more risk and, as my story shows, it can take a while to develop the social networks and specific additional skills that are required.

I am especially concerned with how the neoliberal value for individualism is expressed through disciplinary norms that implicitly discourage fieldwork. In contemporary society—and in spite of social media—we live isolated lives because we “fail to acknowledge interdependence and obligation in society” (Arai and Pedlar 2003, p. 187). Publishing single-authored journal articles is an important way to develop a philosophical reputation, but it should not be the only way, because it does not build the ties between philosophers and society that are necessary for our work to get purchase. Philosophers use conceptual tools that are useful to policymakers, and even if we are not necessarily obligated to do fieldwork, the norms of the profession should at least support it.

I feel a personal obligation to be civically engaged, and to use my skills to support the public good. The value and effort of this work should be recognized as valuable in the profession. We do philosophy for a reason; we are the “thinkers” in society and we should use our art for the common good. Arai and Pedler (2003, p. 187) remind us that we have lost sight of the common good. A focus on individual liberty risks ignoring social justice. However, we do not have to be communitarian to want to improve our communities.

Whether as philosophers or as ordinary citizens, we are responsible for our actions, our beliefs, and how we affect others in society. We have a responsibility to contribute to just outcomes when we can. For me, this means working for justice for victims of sex trafficking. As a moral philosopher, my duty is to call out the injustices, point out the contributing factors, and do my part. Sometimes this means changing one person’s views at a time; sometimes it means contributing to committee work that will alter policy on a larger scale. I have found this work time-consuming, but rewarding. My connection to the community has motivated me to move from being complacent and concerned with furthering my career to becoming engaged both professionally and personally. Kant’s moral view obligates us to help others. The consequentialist also obligates us to become civically engaged—ending the suffering of those being trafficked or preventing trafficking reduces harm and results in an overall increase of positive outcomes. So, whatever our moral commitments are, we have both personal and professional duties to act when we can reasonably do so. Challenging the status quo, actively or passively, changes the norms and gradually brings about grassroots change.



## Concluding Remarks

My experience of working with people outside of philosophy—especially in meeting survivors of sex trafficking—has affected my philosophical thinking. Philosophers contribute to the study and analysis of social issues, and working in the real world improves our philosophical understanding. Meeting with sex trafficking victims has increased my appreciation of the radical importance of nuanced understandings of autonomy and agency. The ethical underpinning of choice and autonomy to the issue of human trafficking is essential both to understanding why it violates human dignity and what victims need in order to move forward. For instance, human trafficking may violate a person's sense of autonomy but may also, in time, reduce their sense of having the ability to make choices and exercise autonomy. A person's ethical sense of self is closely tied to a psychological sense of self. Thus, while people in sex work have survival skills that have kept them safe in the sex trade, those might not be appropriate skills for surviving and thriving in mainstream society. Through training and psychotherapy, survivors can gain tools they lack. The younger the age of victimization, the longer the recovery time, and also the greater the lack of skills needed for everyday social life. Emphasizing the role of choice and autonomy in sex work—and distinguishing voluntary participation from sexual slavery—adds nuance to the framework that caregivers use.

Writing this chapter has been a reminder that I am both an academic philosopher and a citizen. My obligation to my community is not limited to my role as a teacher. My involvement in community and policy work has increased gradually, and my confidence in the value of my contribution to the community has likewise increased. The taskforce on human trafficking in Oklahoma was an important lesson in humility about working with practitioners who have different kinds of expertise and a different culture. If you don't know what to do, show up, watch, listen, ask, and eventually increase your involvement. Non-profit organizations always welcome help, but they are also cautious since they often deal with vulnerable populations. One way to get involved initially is to attend meetings, workshops, and training sessions, to learn the ropes, and to volunteer for "boring" tasks in order to become known and establish credibility. As for professional and academic recognition, I have found that my home department, the College of Professional and Continuing Studies (Liberal Studies), supports and encourages my research on human trafficking (Alavi, 2019). However, my contribution to the community goes beyond teaching about human trafficking in class and publishing articles for other philosophers. The impacts that are most important are the ones that more directly impact victims of injustice.



## Notes

- 1 See [www.ywcaokc.org/volunteer](http://www.ywcaokc.org/volunteer).
- 2 See RISE (Restoring Identities After Sexual Exploitation), Youth Services, [www.rise-shelter.org](http://www.rise-shelter.org); DVIS (Domestic Violence Intervention Services), <http://DVIS.org>; The Dragonfly Home, [www.thedragonflyhome.org](http://www.thedragonflyhome.org); and Dayspring Villa: Women and Children's Shelter, <http://dayspringvilla.com>.

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# 19

## FIELD PHILOSOPHY IN AN ACTUAL FIELD

*Paul B. Thompson*

The title of this chapter hints at the way it will navigate between the sublime and the ridiculous. The sublime is indicated by Bob Frodeman and Adam Briggles's conception of field philosophy: work by disciplinarily trained philosophers that goes beyond the traditional departmental seminar, classroom, or journal article to engage with the philosophical problems of people occupied with otherwise non-philosophical professions or activities (Frodeman and Briggles, 2016). In my case, this has meant working with agricultural scientists as well as with producers and other professionals in the food industry. The absurdity is reflected in punning greeting cards, refrigerator magnets, and other sundry gift-shop paraphernalia that depict a farmer amid stalks of corn or shafts of wheat along with the caption, "A man who is out standing in his field!"

At the risk of a little immodesty, I will reflect on my own career as an example of how philosophy can engage with and be of assistance to problem solving in practical and policy contexts, and recount a few of the ways in which I believe that I have done that over my career. Giving advice on "how to do it" for future practitioners of field philosophy will be more difficult. As I have recounted elsewhere, the circumstances that enabled me to undertake my work on agriculture and food systems were, in important respects, not of my own making (Thompson, 2015a). In lieu of a true field guide to field philosophy, then, the second half of the chapter will offer advice more along the lines of "how not to screw it up" than "how to do it."

### **Creating Agriculture and Food Ethics: 1980–2010**

As I have come to view my own work on agriculture and food, it is continuous with much of the philosophical scholarship that was done prior to 1850. Once I



learned something about agriculture, I began to read the writings of the ancient Greeks, and of Locke, Rousseau, and Mill as quite engaged with agrarian themes, despite the fact that nothing in my prior philosophical training had prepared me to see these connections. Nevertheless, the day that I accepted a joint faculty position at Texas A&M University in 1980 that was half in philosophy, half in agricultural economics, it was only a slight (joking) exaggeration to say that I was immediately one of the top five philosophers working in agriculture. With some important exceptions, philosophers had abandoned all interest in the production, distribution, and consumption of food by the dawn of the twentieth century. By the time I started my professional career, there had been more than a century of neglect.

A few years after the publication of Michael Pollan's (2006) *The Omnivore's Dilemma*, which uses eating ethically as a trope, a new generation of philosophers have now entered the field. My impression is that most of them have never heard of my work, or that of other philosophers who were involved in starting the Agriculture, Food and Human Values Society, the European Society for Agriculture and Food Ethics or in launching journals such as *Agriculture and Human Values* or *The Journal of Agricultural and Environmental Ethics*. I am sure that many people who think of themselves as conversant in the field of food ethics as it has evolved after 2010 will have little or no familiarity with the areas of scholarship I will discuss.

I was assigned to develop an undergraduate course that would cover issues of relevance to students majoring in agricultural disciplines. There was important work by philosophers that set the stage for this, most especially the two strands of research inaugurated by Peter Singer at the earliest stages of his own career. The 1972 paper "Famine, Affluence and Morality," (Singer, 1972) had launched a stream of philosophical scholarship on the phenomenon of world hunger, while Singer's review essay in *The New York Review of Books* opened the floodgates for philosophical writing on the ethics of animal use, leading rapidly to numerous philosophical critiques of livestock production (Singer, 1973). I was able to draw upon this literature when putting together my first course on agricultural ethics in 1982.

It would take a few years for me appreciate the difference between working *on* agriculture and food topics, and working *in* agriculture. The institutional history of this transition is recorded in the paper "Agricultural Ethics—Then and Now" (Thompson, 2015a), so I will not repeat it here. The key point for an exposition of field philosophy is that agriculture and food system professionals were struggling with a cluster of anxieties that they had only vaguely formulated to themselves. For some people, the worries took the form of disquiet over the direction of social and technical change in agricultural production systems, especially in the domain of animal husbandry. For others, it was a feeling of unease that could be summarized by the question, "Why is everyone so angry at us?" By the mid-1980s the confusion had risen to the point that some audiences were willing to



listen to anyone who could give them a leverage point for dealing with the troubles, including a very junior professor with a Ph.D. in philosophy.

My work over 40 years has touched on many topics, including the general philosophy of agricultural research, the structure of the undergraduate curriculum in agriculture, and the rationale for biofuels. I have often joked that from the perspective of my colleagues at Michigan State University's College of Agriculture and Natural Resources, my portfolio seems so diverse as to be incoherent, yet when I go back to the philosophy department people say: "Your work is so narrow! Everything is about agriculture." I also had a brief stint with field philosophy in the computer science department during my time at Purdue University. Yet, perhaps the best way to summarize the most effective dimensions of my research are to focus on three areas: animal welfare and animal rights, biotechnology, and sustainability. Accordingly, the next three sections take up each theme in succession before moving on to more general reflections.

## **Animal Welfare and Animal Rights**

One early source of perplexity among farmers and agricultural scientists was the meaning of animal rights, and one of my first experiences beyond the academy came when Ray Strickland, a professor of animal science at the University of Maryland, invited me to talk about animal ethics with a group of Ohio dairy farmers. This was, in many respects, a fairly standard classroom lecture. I went through the difference between legal rights and moral rights, and covered the difference between a rights view and a utilitarian approach to optimizing welfare in ethical theory. I also discussed how usage of the phrase 'animal rights' was emerging to indicate support for a social movement urging radical change in the use of animals, irrespective of the philosophical or legal foundations for change. My talk to the dairy farmers emphasized the distinction between 'animal rights' as a convenient way of gesturing toward sweeping transformation in animal use, and 'animal rights' as a concept intended to stress the ethics of treatment given to an individual, as distinct from ethical concepts of benefit and cost that could be distributed across a population (or herd). Dairy farmers themselves regard the interests of each individual animal as generating obligations of husbandry, and they viewed the population-level thinking typical of utilitarianism with suspicion. In that sense, they were more comfortable with an animal rights view than Peter Singer-style welfarism. But if animal rights meant the abolition of dairying, they were opposed.

I presented all this to the dairy farmers in the spirit of helping them make sense of what was happening around them. I was amazed by two things. One was how quickly they could grasp conceptual points, such as the difference between consequentialism and rule-based ethics, especially in comparison to my Texas A&M undergraduates. This was a demonstration of the crucial difference between a motivated learner and the typical audience that philosophy professors



face in their classrooms. The other point was how appreciative they were of simply getting some clarity. They weren't looking for someone to lecture them on their own practice; they just wanted a better grasp of the social discourse that was affecting their husbandry.

I did similar lectures at animal science seminars and conferences. Before long, only two American philosophers were working with livestock producers and the animal science community to address the ethics of industrial livestock production. Bernard Rollin was one, and I was the other. Bernie and I played 'bad cop/good cop' with the industry for 25 years. Bernie was the philosopher who was able to beat them up a bit without alienating them altogether (see Rollin, 1990, 1995), while I was the guy who would come along and offer terminology that would allow them to undertake their own normative conversation about what changes to pursue (Thompson and Swanson, 1993; Thompson, 2004). If I displayed any philosophical originality throughout this period, it had nothing to do with the moral standing of animals. Rather, I would stress a point in the metaethics of action: an individual farmer is powerless to undertake changes that will make his or her operation uncompetitive. Choosing to do that is choosing not to be an animal producer, in the long run. Hence, to hear the word 'ethics' and to think that some personal responsibility is about to be imposed upon them is a mistake. Instead, reform of production systems has to occur through collective, coordinated action on an industry-wide basis.

This work was mostly disseminated through talks and small group discussions, though I did get the metaethical point into print in a number of venues that would be quite unusual for a philosophy professor (Thompson, 2001, 2005). The most influential one was the "Preface" to the National Pork Board's *Swine Care Handbook* (Thompson, 2002). Producers did not need a philosophy professor to tell them that there were essentially two ways that industry reform could be effected: cooperation or government regulation. They also knew which option they preferred, and the practical leadership in encouraging cooperative reform passed immediately into the hands of people like Stan Curtis, Jeff Armstrong, and, especially, Temple Grandin. All are animal scientists who have played significant roles in convincing producer groups to make changes based on their ethical obligations to animals. I'll take some credit for having a personal influence on Curtis and Armstrong, and an indirect influence on Grandin, who was completing her doctorate under Curtis's supervision when I first met her in his lab at the University of Illinois. Curtis and Armstrong have been quiet but instrumental forces in helping producer associations take up the challenge of reforming their husbandry and production systems to improve animal welfare. Grandin, of course, has become an international celebrity for her work on animal welfare.

There is still both practical and philosophical work to be done in achieving reforms (see Thompson, 2014), and I would not say that cooperation is unquestionably the best option for pursuing industry-wide change. Europe has taken



the path of regulatory reform, and there is a widespread presumption that more progress has been achieved as a result. I have discussed some reasons to question this presumption in my book *From Field to Fork: Food Ethics for Everyone* (Thompson, 2015b), but that takes us back to a very practical application of some basic issues in political philosophy—issues that surely any philosopher can understand and appreciate. Or maybe not. My words from the *Swine Care Handbook* urging producers to undertake cooperative change in their production system have been read by some pro-animal theorists as defending total inaction on the part of the industry (see Wolfson and Sullivan, 2004). Similarly, some have seen my willingness to work with large scale industrial producers on making changes as an endorsement of their practice. I don't see it that way, of course, and that points toward some of the challenges for field philosophy that will be discussed later.

## The Risks of Agricultural Biotechnology

In contrast to my work with animal producers, which mostly consists of explaining and applying basic philosophical concepts, I think of myself as having done original philosophical work on risk and risk assessment. The characterization of risk that dominates in the sciences takes it to be a quantifiable function of hazard (the bad thing that might happen) and exposure (the conditional probability that it will actually occur, given specifiable circumstances). There is often, but not always, a further presumption that classical utilitarian ethics provides the appropriate normative framework for managing risk. Since 1980, several philosophers have critiqued these framing assumptions, but my particular work has stressed two points. First, the hazard/exposure conceptualization does not provide an adequate analysis of the way the word 'risk' is actually used in ordinary language. As a verb, at least, the word 'risk' has a grammar that suggests it is a form of intentional action. It indicates a category of actions distinguished in part, perhaps, because they call for caution and, in some contexts, acts of heroism or courage. This usage presupposes a distinction between acts that *are* risky and those that are not, irrespective of the ubiquitous potential for exposure to hazards. This act-categorizing usage of the word 'risk' links hazardous activities with notions of responsibility. Philosophers might say that this yields a more agent-centered account of risk, while hazard and exposure characterize outcomes. Hence to presume, as many risk specialists do, that 'there is no zero risk' (e.g., that risk is pervasive across *all* circumstances) functionally disables grammatical conventions that are normatively important (Thompson, 1999).

Second, in contrast to philosophers such as Kristin Shrader-Frechette (1991) or Carl Cranor (1990), I have argued for the view that epistemic factors can properly give rise to the condition of being at risk. This is, in the most basic case, simply to say that when one is aware of one's lack of knowledge, it is



reasonable and philosophically defensible to characterize one's uncertainties as generating risk (Thompson, 1986a). In a similar vein, I have defended the view that those who act from ignorance take more risk than those who do not, even when they both do virtually the same exact thing (Thompson, 1986b). Space does not allow even a summary of the reactions to this scholarship or the complex tangle of conceptual, epistemic, and ontological questions that must be sorted out in order to develop an adequate view of what risk is. Here, I will simply highlight some ways in which this work has affected thinking in policy and practice for agricultural biotechnology.

Put succinctly, there is a widespread tendency for people with scientific training to presume that risks are just obviously acceptable when they are offset by benefits, and especially so when the benefits are morally compelling. Since agricultural scientists think of themselves as contributing to future generations' ability to 'feed the world,' they regard the benefits of their work as morally compelling. There are quite a few philosophical presumptions that need deconstructing here, but the most obvious one is a basic point in moral philosophy. Even if, as a classic utilitarian, one is indeed convinced that risk–benefit optimization is the right standard for evaluating technological innovations, any philosopher is going to recognize that there are alternative views and that one has to provide an argument in favor of one's perspective. Many (and I mean *many*) scientists *do not* see this, and hence there are numerous opportunities to explain why people are so enraged. This is a point on which I think Shrader-Frechette, Cranor, and I all agree.

My work among molecular biologists using gene transfer to develop new crops and food animals has often taken the tack of getting this basic point across, and then helping them to appreciate other ways that values influence the conceptualization of risks. I must have given a dozen or so talks to scientific groups in which the main message has simply been to show that an 'informed consent' standard—the standard they all must meet when research involves human subjects—is actually *intended* to block risk–benefit rationalizations for exposing people to risk. As such, people are not being irrational or crazy when their response to novel food technologies is to insist on an institutional structure that allows them to 'opt out' (Thompson, 1996). This doesn't mean they are right to insist on this, but it does place a burden upon the advocates of technology to provide reasons for their preferred alternative. And, as I have argued repeatedly, the advocates of biotechnology were very, very slow to do this (Thompson, 1998; Wolfenbarger et al., 2004).

Thus, a fairly basic point in moral philosophy opens into a set of more complex issues that remain largely unresolved. What are the fiduciary responsibilities of scientists with respect to warning the public about risks, or of advising them when putative dangers are overblown? How does the institutional structure of the disciplines militate against scientists participating in public discourse on technically complex issues, and how do epistemic values (such as objectivity)



intersect with the need to undertake educative or persuasive engagement with interested parties? Even more basic questions concern the way that experience and community values have influenced the way that agricultural scientists *define* the potential hazards from gene transfer, or how they frame gene transfer approaches to new variety development as similar to or different from conventional breeding. As I have argued, these values significantly shape the way that one evaluates the risks of agricultural biotechnology (Thompson, 1988, 2003). Significant for the conception of field philosophy embodied in this volume is that I have published this work in scientific journals, rather than talking to other philosophers. Unfortunately for me, this has made most of my better philosophical work totally invisible to my colleagues in the philosophy of science. This is another point that needs revisiting in the concluding section.

Has this work had influence? While I can be fairly confident in asserting the influence of my largely uncreative work on animal issues, it is much more difficult to document any influence I may have had on the trajectory of agricultural biotechnology and its policy. There have certainly been changes in policy on labeling that are consistent with positions that I have argued. Early on, the U.S. Food and Drug Administration (FDA) was promulgating rules on labeling products of biotechnology that did not accommodate the range of reasons why people wanted to know about it (Thompson, 2002), but, of course, I am not the only or the loudest voice that has argued for those changes. I have been asked to participate in a number of advisory roles, including service on a National Resource Council committee and many years of service on Genome Canada's Science Advisory Committee. But my actual influence would be difficult to track, and it was made even more diffuse by Monsanto's appointment of the Canadian philosopher R. Paul Thompson to its ethics advisory group, and his lecturing in support of gene transfer techniques. This led to a very uncomfortable session prior to my knowledge of the other Paul Thompson's work with Monsanto, in which officials at the U.S. National Research Council were suggesting that I had not disclosed my own industry connections. I was also vilified by activists in Mexico as an industry spokesperson, and I have been frozen out of the U.S. policy dialogue ever since. Can I confess my suspicion that muting and muddling my voice is broadly what someone at Monsanto hoped to achieve? Yet more issues to take up in the concluding section.

## Sustainability

The third area of work is on the theory and practice of sustainable food systems. I began this work with a National Science Foundation (NSF) grant and collaborated with a highly interdisciplinary team at Texas A&M University including Tarla Peterson (communications), Don Vietor (soil science), Bruce Dickson (anthropology), Adolf Gundersen (political science), as well as Jimmie Killingsworth (English). This project bore fruit largely through single-author



publications by Petersen (1997), Gundersen (1995), and myself, but it prepared me for more practical work organizing community supported agriculture (CSA) in collaboration with farmers Jim Rose and Signe Waller along with my wife Diane after we moved to West Lafayette, Indiana in 1997. Diane has really taken the lead on food system activism since we relocated to Lansing, Michigan in 2003, doing work with school gardens, farmers markets, and almost single-handedly organizing a member-initiated CSA for seven years. But Diane's network is an important part of my ability to do the work I do. At Michigan State University, I've worked closely with a group called the Sustainable Michigan Endowed Project (SMEP) organized originally by Sandra Beattie. I assumed leadership of SMEP after Sandra's retirement in 2014. SMEP has done a number of things to promote community-engaged research on sustainability, and I will simply refer readers with an interest in this program to the SMEP website: [www.canr.msu.edu/smep/](http://www.canr.msu.edu/smep/). This kind of field philosophy is almost invisible to colleagues and administrators, and it is important to me that others know how much I value it.

The more overtly philosophical dimensions of this work began with *The Spirit of the Soil* (Thompson, 2017), the book that emerged out of our NSF project at Texas A&M. Here I began some pretty traditional philosophical theorization of sustainability with the expectation that it would be critiqued by other environmental philosophers. That really never happened, but the book was read in Europe where it sparked a number of developments, including my collaboration with the Italian animal scientist Alessandro Nardone. Our paper on livestock science (Thompson and Nardone, 1999) argued that sustainability articulated a general norm for agricultural production systems rather than a singular type of system (such as organic or pasture-based production). We argued that *all* agricultural systems needed to be sustainable and we articulated some initial ideas on what this would mean. Although my views have developed over the years, the key philosophical claim is that there are two related but nonetheless distinct conceptualizations of sustainability. One emphasizes the availability of resources needed to continue a process or practice, while the other envisions sustainability as a property of a socio-technical system that includes and depends upon the continuous reproduction of biotic elements. I have gone on to develop these ideas in publications that were intended for philosophers and for agriculturalists alike (Thompson, 1997).

The primary evidence for impact in this case is a fairly traditional one for academic scholarship: citations. My scholarship written for the agricultural and environmental science audience are among my most frequently cited, especially by scientists working in what are called 'the production disciplines' (e.g., animal science, or plant and soil science). This is not to say that the citation count would be considered high by the standards typically employed in natural and social science disciplines, nor are they high in comparison to the citations garnered by philosophers like Peter Singer. At the time of writing, the



aforementioned “Famine, Affluence and Morality” (Singer, 1972) is showing 2479 citations on Google Scholar, while I am pleased with a publication that gets into three digits. This, too, is a topic for the concluding section. At the same time, I would say that my work on sustainability has had absolutely no influence within environmental philosophy itself. I see no evidence suggesting that anyone has even read these papers, or my book-length study *The Agrarian Vision*, much less that they have felt that my approach is worth talking about.

## Dicta on Field Philosophy from a Veteran

Having passed the standard retirement age for American workers, I can feel some sense of personal satisfaction with my career. I will also say that because I have tended to be jointly appointed in agricultural science programs, I have been paid a higher salary than much better-known colleagues who are in philosophy 100 percent. So I will not complain. Yet my concluding thoughts will mainly stress challenges that anyone who follows behind me will almost certainly confront. First and foremost is the fact that if you want to reach an audience of non-philosophers, you have to do so in venues (conferences and journals) that are designed for them. Only a precious few of them are going to read an article in *Ethics* or *Philosophy of Science* or show up at the Philosophy of Science Association. The citation practice of scientists is to cite work that reports data supporting or relevant to the particular result that they are reporting in their own article. Even when I have written an influential piece, it never does *that*, and so the citation count is pretty low by scientific standards. And, of course, this work is utterly invisible to other philosophers, who seem unable to actually use Google Scholar or unwilling to look at an article in *Poultry Science* even when it pops up in their search results. Even when you have departmental colleagues who are supportive of your work (as I generally have), there are structural barriers to getting field philosophy recognized, even as it is having impact.

Here is a poignant example: One of my more highly cited papers was a collaboration with Wesley Dean, a sociologist who had done a M.A. in philosophy with me before going on to his doctoral work. It was an attempt to sort out some of the conceptual issues in risk assessment and social psychology alluded to above (Thompson and Dean, 1996). Paul Slovic, perhaps the most influential social psychologist to write on risk, incorporates an appreciative summary of our argument into one of his papers entitled, “Trust, Emotion, Sex, Politics, and Science: Surveying the Risk-Assessment Battlefield” (Slovic, 1999). He supports our case for the complexity of risk with his own considerable empirical research on the role of race, gender, political orientation, and other aspects of sociality in shaping a person’s attitudes about the risk of certain technological interventions. Slovic is very generous in the credit he gives to us, urging colleagues to pay more attention to philosophers. Yet, at the time of writing, our paper has 155 citations according to Google Scholar, while Slovic’s paper has 2224.



Some of the barriers to getting work recognized are peculiar to the specific (which is to say, actual) field in which I have practiced my work. As I have opined before, farming is like farting among philosophers and other humanities types: it's almost as gauche to mention it as it is to be caught doing it. Lisa Heldke supports me in this observation (Heldke, 2006) though Lisa's strong connections to feminism have given her a rooting section among philosophers that my work has generally lacked. Anyone who follows in my footsteps would be wise to write on *food* (rather than agriculture) and to couch their approach as explicitly situated within emergent trends that privilege advocacy for marginalized perspectives. I am not sure that this is the best strategy for having an impact *within* the agricultural sciences, but things are changing for the better, even there.

More general problems can be identified. As noted above, there is a presumption that any work actually taken up and utilized by for-profit entities is automatically suspect. The biomedical world has gotten a 'pass' on this (strangely, from my perspective) but a philosopher doing work that is useful to oil companies, retailers or (probably) Facebook, Google, or Microsoft would probably be decried as an industry shill. Even if the criticism stops short of that, it seems doubtful that the philosophical problems of powerful actors will ever be seen as worthy of serious attention in American philosophy departments as they are currently configured. The argument against this bias is simple: powerful individuals and groups are not (usually) evil, even when their activities are harmful and ill-conceived. They are often willing to do something different, and helping them think through their practice can bring about significant improvements in the lives of the oppressed (including animals). John Dewey made the case for this meliorist approach (see Fesmire, 2003) and it would be helpful if more contemporary philosophers read a little Dewey now and then.

And then there is the genuinely evil actor, or perhaps they are only strategic in the way that they will both utilize and also manipulate the reception of your work. I was once quoted on the radio about some experimental work on congenitally blind chickens. Animal protection groups twisted this into the claim that I was advocating the blinding of chickens, while some other comments I had made about the potential for using genetic engineering to limit the environmentally adverse impacts of agriculture were blown up into the claim that I was defending the use of so-called terminator seeds. I was also accused of direct industry ties in the aforementioned public meeting on possible gene flow in Mexico. All of these misrepresentations of the truth were undertaken by activist organizations, but they may have been misled by the fact that a Canadian named Paul Thompson was, in fact, serving on an advisory board for Monsanto, and this fact was proclaimed on the company's website. The Canadian Paul Thompson had never published anything on agriculture or biotechnology up to that point, while I had a book, a dozen or so journal articles, and the service I had done on advisory boards and centers behind me. When I speak of evil or



strategic actors I am admittedly speculating on motives, but I have my suspicions (directed at Monsanto, not Thompson), nonetheless. This kind of manipulation is something that people in field philosophy should expect, and it may be some of the best evidence that they are actually having some impact. Frankly, I have no good advice here. I wish I had been able to figure out something more useful than just “soldier on.”

What, then, have I done right? Arguably it is something mentioned rather indirectly in this chapter. My career total for external grants and contracts is slightly above five million dollars, an amount that is respectable even for most social scientists. If this has been as material to my ability to garner the respect of my science colleagues as I suspect it has, it is a depressing comment on the state of the American professorate. But this is, I submit, too many downers in a row. Having an impact is possible and, with a bit of support from one’s disciplinary colleagues, it is possible to do that from the platform provided by a professorship in philosophy. The philosophical problems of non-philosophers are real and, of equal importance, they are philosophically *interesting*. As Frodeman and Briggie (2016) have argued and Dewey before them, philosophers can not only do something useful (beyond teaching) with their academic careers, they could reinvigorate the disciplinary practice of philosophy as well. If only, that is, some other philosophers would read them.

Yet, perhaps there is a bit more that I can say. The first point draws on what I have recounted with respect to animal welfare. I was not doing anything in most of the forums where I participated beyond explaining what *other* people were saying. This is, I believe, what about 95 percent of undergraduate teaching in philosophy departments consists of. When you get called on to help people with their philosophical problems, you should not take this in the same way you might if you were asked to give a talk at an academic conference, where you would, indeed, be expected to report on your own philosophical scholarship. The kind of help philosophers can give outside their seminars and classrooms is going to differ pretty dramatically from what we do in those settings, but it may still feel quite a bit like pedagogy. Don’t be embarrassed by that. You wouldn’t want to go to a doctor who insisted on *only* trying some experimental treatment on every patient that walks through the door.

Second, it was Ronald Reagan who said, “There is no limit to the amount of good you can do if you don’t care who gets the credit.” The academic translation of this might be, “Feel good about being an important source in a paper that gets cited over 2000 times, even if your own work never rises to that level of influence.” There are, of course, limits here. I’m not saying you should let somebody steal your work. Nevertheless, I’ve probably not done an adequate job of communicating my own sense of the way in which work I have done is paving the way even for people who have never read anything I’ve written or, indeed, even heard of me. There is now a cadre of younger scholars working in the philosophy of science and technology who will, I hope and believe, have



more direct influence than I have had. I wouldn't presume to take credit for their accomplishments, yet I do believe that the existence of this burgeoning field is in some small way a bit of the good that I have done.

Next, find *some* way to write it up, even if the chances of getting it read are vanishingly small. Not only do administrators like to report virtually any kind of publication, but when you are over the age of 65 and someone asks you to reflect on your career, you will be in a position to list dozens of your own publications! Also, be supportive of this work among your colleagues. One thing I've not discussed is writing at least 100 external tenure and promotion review letters over my career. I've learned to take pains and explain why the work of the kind of people I get asked to write for is important, and how it is vital to the mission of the university. And, more locally, I'm proud to be finishing up my career at Michigan State University, where we have assembled a department of people with ethnically and intellectually diverse backgrounds who support the kind of work that Frodeman and Briggie call "field philosophy." And finally, as I've also written elsewhere, it's always better to be lucky than smart.

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## PART V

# Changing Philosophical Practice





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# 20

## GRASSROOTS PHILOSOPHY AND GOING AGAINST THE GRAIN

*Alisa Bierria*

Advocates of field philosophy—or philosophical projects that build working partnerships between academic philosophers and professionals outside academia—have sounded a warning about the future of philosophy. Given neoliberal pressures in academia to assess the value of educational efforts using market-based logic, some have argued that academic philosophy must demonstrate its utility and relevance in the “real world” to navigate an era of increasing divestment from the humanities (Frodeman et al. 2012). In this chapter, I use my experience engaging in philosophical projects outside of academia to argue why contesting neoliberal ideology can support the growth of philosophy. I propose the model of “grassroots philosophy” as a democratic approach to engaged philosophical work that resonates with some core principles of field philosophy while challenging others, which I hope will open future conversations. Grassroots philosophy reflects a praxis based in community organizing in which the norms of professional philosophy (specifically, views about who are considered philosophers, what work is understood to be “doing philosophy,” and where philosophical thinking emerges and thrives) are unsettled and reconceptualized.

This chapter begins with a case study of grassroots philosophy based on my own experience as a philosopher and Black feminist community organizer. Drawing lessons from this case study, I consider the implications of grassroots philosophy for academic philosophy, particularly as it relates to countering the influence of neoliberal ideology in education. This discussion also interrogates the structuring norms within professional philosophy to propose future pathways to sustaining philosophy.



## Grassroots Philosophy: A Case Study

The organizing practices of Communities Against Rape & Abuse (CARA), a community-based organization based in Seattle in the 2000s, exemplify what I describe as “grassroots philosophy.” In what follows, I discuss the context of CARA’s emergence and my connection with it, as well as its development as a community center for political education and philosophical analysis.

After completing a BA in philosophy in 1997, I was fortunate to quickly find a political community in Seattle with a focus on feminist anti-violence community organizing. My interest in philosophy had a particular focus on rape and domestic violence, not only as a personal ethical failure but also as a pervasive political phenomenon that forms our world, including the social production of concepts such as agency, identity, borders and nation-states, relationality, and what it means to be human. I believed that the best way to think through this philosophical problem was through a practice of service. I volunteered as a crisis line victims’ advocate at the local anti-rape organization, Seattle Rape Relief (SRR). One of the first rape crisis centers established in the United States, SRR was closed in 1999 amid budget cuts. Troubled by the closure, many of the former volunteers and staff began to re-imagine what a radical feminist anti-violence organization might be like, eventually building the new organization, CARA.<sup>1</sup>

Established in 2000, our multiracial organization was composed of youth artists and activists; radical women of color; Black feminists and community leaders; rebellious queer, disabled, and working-class people; survivors of violence; and bookish organizers. This community instituted a contemplative organizational culture that intertwined critical thinking and community organizing, discussing a wide range of books and ideas—sometimes as a formal part of our staff and membership meetings, sometimes informally while developing workshop curricula and organizing strategies. Critical thinking shaped strategic organizing on a range of issues, including sexual and domestic violence, reproductive justice and coercive sterilization, disability justice and sexuality, immigration justice, and community-based accountability practices to address gender violence. Our ideas led to philosophical production in the form of toolkits, newsletter articles, op-eds, and workshops. We valued philosophical engagement because we believed that critical theorizing was essential to invent what was, at that time, a relatively unique community organizing approach to anti-violence work (Richie 2012; Kim 2019b).

It is in this context that several CARA members proposed that, as an anti-rape organization, CARA should join the growing prison abolition movement. The process that CARA undertook, leading to its organizational consensus about prison abolition, is at the heart of this case study. The national abolitionist organizations, Critical Resistance and INCITE! Women of Color Against Violence, emerged in 1998 and 2000, respectively, creating a locus of activist



and intellectual attention to the abolition of prisons.<sup>2</sup> This epistemic and political context helped guide our process of evaluating abolitionism, but we did not immediately come to a consensus about prison abolition. On one hand, prisons were devastating our communities: as mass criminalization expanded through the 1980s and 1990s, it alarmingly exacerbated structural violence and was only getting worse (Gilmore 2007; Richie 2012). However, the growing abolition movement and other prison and police reform movements on the racial justice left rarely addressed the urgent problem of sexual and domestic violence in our communities. Could we endorse the abolition of an institution that some survivors understood as a resource for safety, even granting that prisons were a largely destructive force for our communities, including for survivors?<sup>3</sup>

We aimed to *engage* the question rather than resolve it, turning to organizing and education as a strategy to learn more through praxis. Local chapters of Critical Resistance (CR) were organizing film festivals that featured films about the structures and impacts of carceral systems. Several CARA members proposed that CARA host one of their film festivals, which we did in 2002 and 2003. So the first CR prison abolition film festival *not* hosted by a local CR chapter was hosted by an anti-rape organization, which we took as an opportunity requiring thoughtful and creative planning. Event organizers (predominantly young people in their late teens and early twenties) wanted the event to intentionally address sexual and domestic violence, so we added films that were not yet part of the CR library, such as clips of speakers at the INCITE! conferences who defined the intersections of carceral violence and gendered violence. The 2003 CARA event was entitled “Both Sides of the Bars: Resisting Prisons and Building Community Alternatives.” The phrase, “building community alternatives” flagged what was becoming a feminist abolitionist core principle—that abolitionism was as much a politics of invention as it was a politics of dismantling (CARA 2003b; Rojas Durazo et al. 2012). Organizers incorporated workshops, poetry sessions, and a breakout group for survivors, recognizing that diverse methods help create conditions for the emergence of new ideas, and active dialogical learning supports connection and collective action. These sessions expanded both our understanding of the scope of prisons’ impact *and* what was possible for abolitionist organizing, sparking ideas such as coalition building between local anti-violence and anti-prison organizations, the forced institutionalization of disabled people as a kind of carceral violence, and community-based strategies to address gender violence that did not rely on police and prison.

In addition to being a community education and mobilization effort, the events represented a point of praxis that helped CARA members clarify our organizational stance on abolition. This is reflected in the event description in our outreach flyers that stated, “This is a two-day community event to help us understand how prisons are impacting our communities and how to empower our communities to resist prisons and build better alternatives for safety and



accountability” (CARA 2003a). The word “us” in this description indicates that CARA organizers understood ourselves to be in the same learning boat as community members, and that we intended to advance our own learning through praxis. By “praxis,” I mean a myriad of practices that was both a means of organizing a community event *and* organizing the development of analysis. For example, determining what films to pick and why required research and analytical reflection on the needs of our communities and organization. Crafting the flow of the program illuminated areas that needed philosophical attention and growth in abolitionist discourse. Developing workshop curricula helped us reformulate activist strategies into pedagogical approaches. Finally, hosting the event compelled us to more clearly articulate our position on prisons, which ultimately clarified where we landed on the issue. In the 2002 event program, we wrote:

Any movement seeking to end violence will fail if its strategy supports and helps sustain the prison industrial complex. Prisons, policing, the death penalty, the war on terror, and the war on drugs all increase rape, beatings, isolation, oppression, and death. As an anti-rape organization, we cannot support the funneling of resources into the criminal justice system to punish rapists and batterers, as this does not help end violence. It only supports the same system that views incarceration as a solution to complex social problems like rape and abuse. As survivors of rape and domestic violence, we will not let the anti-violence movement be further co-opted to support the mass criminalization of young people, the disappearance of immigrants and refugees, and the dehumanization of poor people, people of color, and people with disabilities. We support the anti-rape movement that builds sustainable communities on a foundation of safety, support, self-determination, and accountability.

(CARA 2002)

In short, it was through practice that CARA fostered philosophical insight.

A practice-to-theory model tends to be counter-intuitive for philosophers who are trained to develop theory first through logical deduction and analysis, and then apply the theory to various scenarios to test its resilience. In fact, as a person trained in academic philosophy and who is drawn to linear thinking, I was personally wary of moving forward with the events without first having a clearly articulated and collectively agreed stance on abolition. Theory *through* practice, however, requires epistemic humility so that one may acknowledge the need to keep learning and be open to reaching different positions or discovering new ideas through practice. This cultivates an ethic of intellectual good faith and trust in a collective learning process as fellow thinkers pursue a practice that will hopefully be revelatory. Epistemic humility also supports people reaching for theoretical insight through practice, even if they are not completely clear



about the implications of the insight. The core hesitation about abolition turned on protecting what was seen as a resource for survivors who needed safety from people who cause profound harm. When we pursued the events, we did not know how to resolve the “What else is there?” problem, we simply came to know, through learning and praxis, that reform efforts were increasingly untenable and prisons were ultimately counterproductive to survivor safety.

The openness to not knowing a firm resolution to “What else is there?” created an opportunity to conjure possible answers to this problem. CARA members slowly began to work with various social networks and groups of friends to consider possible non-carceral approaches to sexual and domestic violence. INCITE! asked CARA to translate these early experimental efforts into written form so this work could be included in their 2006 anthology, *Color of Violence: The INCITE! Anthology*, which led to our article, “Taking Risks: Implementing Grassroots Community Accountability Strategies” (Bierria et al. 2006). Again, for us, it was through practice that community accountability theory was formed, and this “from-practice-to-theory” methodology was reflected in the article itself. We described specific practices that demonstrated our integral commitments to the end of prisons and the end of gender violence, making it one of the first published pieces of writing within this era of U.S. feminist anti-violence organizing that outlined a detailed community accountability approach to gender violence. It was an important theoretical and practical contribution to a broad effort in the United States to develop transformative justice and community accountability strategies, and it has played a key role in the growing abolition movement.<sup>4</sup> Since it was published, “Taking Risks” has been described as a foundational document for this body of work, and it has been widely distributed via zines and other media, translated into Spanish and German by feminist abolitionists outside of the United States, and cited by academics, including academic philosophers.

## Grassroots Philosophy

Through its praxis methodology, its democratic approach to learning, and its intentional commitment to the complicated project of social justice, CARA’s philosophical practices exemplify what I am calling “grassroots philosophy.” In this section I will define this approach and discuss how it corresponds with—but also contests—the vision, practice, and purpose of field philosophy.

The term “grassroots” indicates a philosophical practice that is produced through social justice community organizing and that strengthens the community where it grows. Specifically, it signifies the principle of “group-centered leadership” as described in the grassroots organizing philosophy of legendary Civil Rights Movement organizer, Ella Baker, who, as biographer Barbara Ransby (2003, 7) writes, “viewed a democratic learning process and discourse as the cornerstone of any democratic movement.” Baker argued for a radically



participatory methodology for grassroots organizing, rejecting the paradigm of a single or a few elite men being considered the primary strategic thinkers for the movement. In her view, the production of knowledge at the grassroots is collective and shared. She explained,

In order for us as poor and oppressed people to become a part of a society that is meaningful, the system under which we now exist has to be radically changed. This means that we are going to have to learn to think in radical terms. I use the term radical in its original meaning—getting down to and understanding the root cause. It means facing a system that does not lend itself to your needs and devising means by which you change that system.

(Ransby 2003, 1)

Learning to think in radical terms, as Baker urged, foregrounds the intellectual leadership needed by many people who are doing philosophy in conditions that are severely precarious and epistemically hostile in that systems of power do not “lend themselves” to oppressed people’s experiences, reasoning, methodologies, or agendas for justice. Given the resistant intellectual context, it makes sense to re-think philosophical production in a broad and open sense: we need as many minds as possible working to understand these complicated “root causes,” particularly those situated outside of systems that do not lend themselves to their needs. Grassroots philosophy, then, is *participatory* philosophy that welcomes practitioners with a diversity of skills and strengths, and promotes shared learning as much as it encourages philosophical innovation and the development of emerging ideas.

Grassroots philosophy resonates with several qualities of field philosophy: both approaches value and involve philosophical work outside professional academic philosophy, both conceptualize problems in the context of actual human experience rather than prioritizing abstract thinking, and both initiate the development and evaluation of philosophical claims and arguments in collaboration with people who are not professional academic philosophers. However, the principles of grassroots philosophy challenge and expand the focus of what might be imagined as field philosophy—and philosophy in general. Grassroots philosophy shares a de-disciplining spirit with field philosophy, but goes further in that it destabilizes academic assumptions about how we determine who is regarded as a “philosopher,” what counts as philosophical labor, and for what purpose philosophical thinking is produced.

Importantly, field philosophy expands collaborative possibilities for philosophers, creating generative opportunities for co-thinking with specialists from other fields. Field philosophy has been conceptualized as working collaborations between academic philosophers and “non-philosophic actors in real world settings” or “non-disciplinary stakeholders faced with a ‘live’ problem,” as



advocates of field philosophy describe collaborative partners who are not professional academic philosophers (Frodeman et al. 2012; Frodeman 2017). However, as shown in the CARA case study, grassroots philosophy challenges this distinction between “philosophic” and “non-philosophic” actors. In the case study of grassroots philosophy, all of the actors were engaged in philosophical labor as a shared practice by people with different contributions and analytical strengths, rather than reserved only for those who are located in and credentialed by academia.

A broader understanding of who can be counted as philosophic actors may be challenged by those philosophers who want to defend the notion that only those who receive sustained academic training in philosophy can count as people “doing” legitimate philosophy. However, as Kristie Dotson (2012, 19) has argued,

This objection seems to follow from the idea that philosophy and philosophizing are not a widespread human activity.... This is a form of exceptionalism insofar as it unacceptably rarifies professional philosophical engagement, i.e. it privileges the output of one population over another.

We can acknowledge that sustained training in professional philosophy can advance some philosophical skills, while also recognizing that the practice of developing, challenging, or defending ideas—or the *doing* of philosophy—can flourish with or without academic training. A narrower view of who can be considered philosophic actors does not reflect the reality of philosophy as a common part of human experience, and it obscures critical philosophical production happening outside of (and, sometimes, in opposition to) academic and other professional contexts.

Though CARA was a philosophical endeavor without a specific need for the participation of academic philosophers to thrive, CARA was not isolated from academic philosophy. Just as CARA members sometimes read academic texts for our work, our own texts were read and engaged by academics, such as students and faculty at the Philosophy, Interpretation and Culture department (PIC) at Binghamton University. Philosophers at PIC, then led by Professor María Lugones, incorporated “Taking Risks” (Bierria et al. 2006) into their study of violence and redress, and produced a popular education curriculum on building violence-free communities. This discursive engagement between philosophers at CARA and philosophers at PIC reflects an important formulation of philosophical collaboration, one in which philosophers situated inside, outside, and in-between academic borders unsettle those borders and engage with each other’s ideas through a shared political vision and mutual investment in each other’s unique contributions.

Grassroots philosophy does not merely maintain that non-academic philosophers matter as legitimate philosophers, it challenges the terms of legitimacy,



re-situating philosophy as a resource to help critique the ways legitimization standards become integral to entrenching systems of power, and to re-imagine more inclusive and transformative methods to evaluate the “usefulness” of philosophical practice. Grassroots philosophy is not something that is brought *to* the field, it is produced *in* the field and it redefines the boundaries *of* the field. Also, just as grassroots philosophy demonstrates that we should not assume that philosophy is not already in “the field” without the need for collaboration from academic philosophers, it suggests that we should not assume that “the field” is not already in academic philosophy. Some academic philosophers are engaged in community organizing, policy work, scientific research, and other collaborations, but they have not necessarily been able to connect that context of philosophical labor with the context of professional academia because of the rigidity of structuring norms within academic philosophy, whether they are norms about how philosophy is done or norms about who philosophers are.

Grassroots philosophical labor is by no means unique to CARA; it flourishes in scores of grassroots feminist and social justice organizations whose members collectively develop critical theory and frameworks to understand power and opportunities for transformation. However, I learned that grassroots organizations must intentionally cultivate a value for learning, analysis, and discussion so that members feel free to engage in philosophical labor as part of their organizational contribution. Because many non-profit organizations are pressured by funders to model an economized formula for production, and thus discouraged from intellectual creativity, practicing philosophy at the grassroots can require deviating from conventional expectations of what community organizations are meant to do (INCITE! 2007). Relatedly, academic units may require intentional efforts to support academic philosophers to engage in grassroots philosophy, particularly as units become pressured to conform to similar neoliberal conceptions of value that use market-based criteria to determine the worth of non-market endeavors. For example, the PIC department in Binghamton faced closure in 2011, and PIC students and faculty asserted that it was the department’s lack of profitability that made them a target for campus budget cuts (Racow 2011). In the next sections, I explore what grassroots philosophy can teach us about the utility of academic philosophy in a neoliberal era, and I propose a methodology of deviation, or going against the grain of unjust institutional power, as a survival method for philosophy.

## From Conforming to Transforming

Field philosophers have acknowledged the impact of neoliberalism on higher education, particularly the market-driven reasoning that determines the criteria according to which learning and scholarship are valued (Frodeman et al. 2012). Though they do not endorse the corporatization of educational cultures and



institutions, they argue that philosophers in academia should be responsive to the increased demand placed on academic philosophy departments—and other humanities disciplines perceived as isolated from “the real world”—to provide evidence of its active value to people beyond the university in order to have a better chance of surviving an anti-humanities climate. Philosophy, they argue, can and must respond effectively to “neoliberal demands for accountability” (Frodeman et al. 2012, 17). While this strategic move may be a pragmatic defense of professional academic philosophy in the context of neoliberal pressures, I flag a warning for several reasons.

First, pragmatic responsiveness can easily creep into institutional absorption, as Mimi Kim has demonstrated in her study of anti-violence advocates attempting to manage neoliberal investments in criminalization, only to find themselves subsumed by criminalizing institutions (Kim 2019a). Pragmatic responsiveness may also obscure the ways in which neoliberalism and academia are co-constituted systems. Abigail Boggs and Nick Mitchell have argued that examinations of neoliberalism’s relationship with higher education often presume an idealized notion of the university that is being “wrecked *by* neoliberalism”; rather, they must more squarely contend with how universities themselves are structured by the same political–historical contexts that produced neoliberalism, positioning universities as more of a “mechanism” of neoliberalism rather than a victim of it (Boggs and Mitchell 2018, 443). Finally, neoliberal constructions of accountability and efficiency destructively re-shape the terms of legitimacy to align with market-based paradigms. In a previous essay, I documented the difficulty, and ultimate impossibility, of keeping CARA afloat within related political conditions in the nonprofit field, including navigating funding as the local government re-framed human services as a market enterprise that conflated human beings with capital—ultimately insisting that organizations officially reconceptualize survivors of violence as “customers” receiving “products” in a social service market (Bierria 2007). Neoliberal principles radically transform meaning, recasting human endeavors such as learning or care into commodified exchanges within an economic system that is exploitative, violent, and anti-democratic. Philosophy in all its various fields and forms should be on the front lines of resistance to a political swell that is not only anti-humanities, but *anti-human*.

However, if we disentangle the notion of being responsive to neoliberal conceptions of “usefulness” from field philosophers’ recommendation that academic philosophy more actively demonstrates its social relevance, we can find important shared interests. Given increased conditions of social and economic precarity, philosophy, as a humanities discipline, can (and, I argue, must) be of service in helping us understand and act on social issues that are anti-human, such as prisons, gender violence, global warming, and war. Lecturing in the late 1960s, Angela Y. Davis articulates a similar understanding of how to meaningfully orient the relevancy of philosophy, stating,



My idea of philosophy is that if it is not relevant to human problems, if it does not tell us how we can go about eradicating some of the misery in this world, then it is not worth the name of philosophy. I think Socrates made a very profound statement when he asserted that the *raison d'être* of philosophy is to teach us proper living. In this day and age 'proper living' means liberation from the urgent problems of poverty, economic necessity and indoctrination, mental oppression.

(Davis 1969)

The CARA case illustrates how philosophy can be a liberation project, as Davis outlines, and is therefore socially relevant, impactful, and useful. However, in this case, the utility of philosophy was oriented toward the demands of participatory social justice—that is, philosophy was used to push against, rather than fall in line with, the momentum of neoliberal developments (such as the big business of mass incarceration). Field and other forms of philosophy can use *deviation* from harmful institutional currents as a method to imagine survival strategies for philosophy.

## Deviation as Method

Deviation as a survival method answers Ella Baker's call to "[face] a system that does not lend itself to your needs and devis[e] means by which you change that system." "Lend itself" is a particularly useful phrase, inviting us to ask how a system can organize itself to be of use to the needs of those on the margins of philosophy, academia, and social structures. The structuring norms that constitute the discipline of professional philosophy—including methodologies, intellectual legacies, research content, social practices, and social demographics—create institutional currents that usually do not lend the production of philosophical thought to the needs of those that fall out of the norm, including those who have non-normative bodies and social identities, non-normative social backgrounds, and non-normative approaches to philosophy. Deviating from these currents—or pushing in a different direction by challenging or refusing these norms—can be exhausting and professionally hazardous, but can also provoke better conditions for thinking more creatively about the direction of philosophy (Dotson 2012; Berruz 2014; James 2014).

As an example of a structuring norm within academic philosophy, let us consider the norm of whiteness. The Eurocentrism and white supremacy embedded in the development of dominant forms of Western philosophy has been well documented and analyzed (Mills 1997; Babbitt and Campbell 1999; Wynter 2003). Whiteness structures the institution of philosophy in multiple ways, including through the demographics of students and faculty, the erasure of non-white histories of philosophy, and imagined philosophical publics. Echoing Cheryl Harris's framework in her landmark work, "Whiteness as Property,"



whiteness also operates as a *credentializing property* within philosophy (Harris 1993). Imagining whiteness not just as a socially constructed racial identity, but as a valuable asset, helps provide a framework for understanding whiteness in philosophy as not just a characteristic of the vast majority of U.S. professional philosophers, but as an academic credential that bestows a presumption of legitimacy upon white philosophers and their work.

Whiteness as an unspoken credential in philosophy, a professional property, is relevant to the politics of pursuing innovative forms of philosophy in academia that transgress or challenge other structuring norms within the profession, including field philosophy. If whiteness works as a structuring norm that accredits white philosophers with a critical presumption of legitimacy, and if, as Kristie Dotson (2012, 5) argues, “legitimation [is] the penultimate vetting process,” then we must consider how that dynamic shapes the stakes of engaging in field philosophy. That is, how does the credential of whiteness afford credibility to white philosophers who are taking creative risks in professional philosophy? Philosophers without the whiteness credit (particularly women of color) have provided vivid testimony, reflecting on prudently managing a pre-existing professional racial/gender *debt* by avoiding the transgression of dominant norms in methodology or subject matter (Alcoff 2012; Berruz 2014; James 2014). But if philosophers are credentialed with whiteness (among other identity-based credentials), they potentially have more flexibility to transgress prevailing norms in methodology and subject matter (such as engaging in projects like field philosophy or radical philosophy) without weakening their status as “legitimate” philosophers doing “legitimate” philosophy. In this way, field philosophy and other innovating philosophies within academia are structurally situated to “go with the flow” of whiteness as a credentializing property.

In an exploration of institutional practices, Sara Ahmed (2015) reflects,

Maybe an institution is like an old garment: if it has acquired the shape of those who tend to wear it, then it becomes easier to wear if you have that shape. The ease of movement, the lack of a stress might describe not only the habits of a body that has incorporated things, but also how an institution takes shape around a body.... Once a certain body is assumed, then a body that fulfills this assumption can more easily take up a space even if the space is imagined as open to anybody.

Ahmed’s description resonates with the character of academic philosophy, an institution which also takes shape around a body—both an assumed body that is racialized as white which creates norms about who a philosopher is and, relatedly, a body of assumptions that creates norms for how philosophy ought to be done. A deviation from methodological norms within academic philosophy can structurally reinforce whiteness as credit, as institutions will seek to compensate for the destabilization of one norm by seeking the ease and comfort of



familiarity with another. If white philosophers challenge how philosophy is done, the challenge to methodology may be met with skepticism from the professional field, yet the implicit and unacknowledged structuring norm of whiteness can also afford them the benefit of the doubt. Thus, white philosophers are provided with more institutional ease to deviate from academic philosophy's methodological structuring norms—such as methodological norms that must be abandoned or transformed to enable field philosophy. Therefore, though field philosophy is occupied with deviations from methodological norms that are oriented outward into “the field,” ethically, it must simultaneously advocate for deviations from various harmful norms (such as whiteness as a structuring norm) that are oriented *inward* toward departments, campuses, and professional institutions.

As an example of opportunities created by deviations, consider the recent data finding that majors in what are considered the “four big humanities disciplines”—philosophy, history, languages, and English—have experienced a startling drop of nearly 50 percent since 2008 (Schmidt 2018). Researcher Benjamin Schmidt argues that the drop is likely due to students' pessimism about *perceived*, rather than actual, job prospects for humanities majors, which underscores the ideological power of neoliberalism. However, Schmidt (2018) notes a significant exception to this trend, writing,

While history, English, and the rest have faded, only one set of humanities fields without a foot in the sciences has clearly held its own: the much newer (and smaller) disciplines the statistical agency joins together as ethnic, gender, and cultural studies.... Relatedly, I've only found one large class of schools where humanities enrollments have held steady: historically black colleges and universities [HBCUs]. [These] are also the only institutional class where a majority of students say they're dedicated to crafting a philosophy of life.

It appears that the humanities fields that are weathering an era of divestment, at least in terms of holding firm their rate of undergraduate majors, are interdisciplinary fields that intentionally focus on the lives and intellectual legacies of those communities that are most marginalized by academic philosophy, flagging an important area for academic philosophy to grow. The fact that predominantly Black student populations attending HBCUs remain consistently engaged in the humanities—both as majors in fields of study and as an approach to living one's life—also marks an important opportunity for academic philosophy, which continues to have a considerably low percentage of Black students (American Academy of Arts & Sciences 2016). Furthermore, intellectual engagement and collaboration with communities outside of academia is a central founding principle for Ethnic Studies (Delgado 2016), which suggests possible generative common ground between Ethnic Studies scholars and field/grassroots philosophers.



Because academic philosophy continues to be one of the least diverse humanities fields with regard to race and gender, I propose that philosophy departments, practitioners, and advocates establish practices that go against the grain of exclusionary structuring norms to become more actively and explicitly invested in racial and gender justice within and outside of philosophy. Institutional efforts to affirm racial and gender justice—via both institutional practices and curricular content<sup>5</sup>—may help to increase the relevance of academic philosophy for those on its margins or not on its radar at all. I am not merely referring to the acknowledged view that the discipline must increase its demographic diversity. Philosophers must courageously contend with the exclusionary infrastructure of the disciplinary field itself to radically expand what is possible in academic philosophy and allow it to earn the diversity it needs.

Structuring norms constitute and produce academic philosophy, defining the boundaries of its purpose, providing ease when one goes with the flow of those norms, and complication, alienation, and doubt when one deviates. As Ahmed (2018) succinctly notes, “Deviation is hard. Deviation is made hard.” Therefore, for philosophy to have a robust future, it will require that philosophers—inside and outside academia—actively cultivate conditions that make deviations from structuring norms within philosophy *less* hard. For academic philosophers, examples of “first step” recommendations could include the following:

- welcome non-academic philosophical practitioners to participate in academic philosophy events and advocate for changes needed to make it more accessible and relevant to more kinds of philosophers;
- create institutional opportunities for students and faculty to discuss their non-academic philosophical work with the departmental and campus community, *especially* if they lack the accreditation of whiteness;
- seek interdisciplinary partnerships with faculty and students of color in other departments committed to community-engaged scholarship, and challenge hesitations to do so based on the worry that other departments have “different standards”;
- contest the notion that the stakes of “free speech” are equal for everyone, and actively support the speech of colleagues and others inside and outside academia who are targeted by systems of oppression;
- critically evaluate the race and gender politics of who is valued as “philosophers” in departments and associations, including demographics of faculty and students, curricular priorities, and visual representations of who are taken to be “typical” philosophers;
- prioritize hiring faculty and admitting students from groups marginalized within academic philosophy, including those not doing “traditional” philosophy;
- consistently support living wages and fair labor practices on campus and beyond.



Are these recommendations radical? They're not radical in Baker's sense of getting at the root causes. However, initial steps can begin orienting academic philosophy toward becoming a system that, to echo Baker, lends itself to the needs of philosophers who may be invisible to, or marginal in, the professional field, but who may also have a particular investment in the humanities. Though these recommendations are relatively modest, they may nevertheless make some in academic philosophy feel uncomfortable. It is this discomfort of deviation that I am recommending academic philosophers embrace. Small deviations toward more inclusion can enrich the practice of philosophy; more importantly, strategic deviations can create conditions for philosophy to not merely allow a limited number of different kinds of philosophers and philosophical projects into academic philosophy, but to let those people and projects *transform* academic philosophy to make it more open, collaborative, relevant, and generative. Committing to initial practices with the courage to let those practices make room for bigger deviations can enable more people to radically re-imagine the utility of philosophy and develop *foundational* challenges to systems destructive to many things, including the humanities. Through practice, theory.

As a nonprofit, CARA did not survive—in part because the organization could no longer contort itself to fall in line with the demands of neoliberalism. However, as a philosophical project, CARA carries on as a decentralized set of learnings that have a persistent influence in ways that I, at least, could not anticipate. Philosophy's future will turn on its ability to deviate inside and outside academia, to adapt its form to fit many more kinds of practices and people who have profound stakes in the survival of philosophy and, relatedly, the survival of their communities. Ultimately, I think that philosophers will need to disaggregate the project of “saving philosophy” from “saving the university,” giving us the space we need to map a future for philosophy that is more plural, transformative, and free.

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## Notes

- 1 I review the details of SRR's closure and the emergence of CARA in the article, “Pursuing A Radical Anti-Violence Agenda Inside/Outside a Non-Profit Structure” (Bierria 2007). Also, because so much of CARA's work occurred in rich collective praxis, I should note that the description of CARA's work laid out here is meant to reflect my own memory and experiences.
- 2 Notably, philosopher and former political prisoner, Angela Y. Davis, had key roles in the inaugural conferences for both of these organizations—milestone events for the contemporary abolitionist movement.



- 3 This tension is explored in the 2001 INCITE!–Critical Resistance Statement on “Gender Violence and the Prison Industrial Complex,” a document written by a national group of feminist of color anti-violence scholars, advocates, and activists, including CARA members Eboni Colbert and Theryn Kigvamasud’Vashti. The statement became a key document that supported feminist critiques of criminalizing responses to violence.
- 4 The emergence of this movement is explored in Brazzell (2015) and Rojas Durazo et al. (2012). Transformative justice/community accountability efforts have resonance with more radical forms of restorative justice, but are distinct in that they are deliberately grounded in a feminist, social justice, and abolitionist politics. Also, it should be noted that “Taking Risks” was published at a time when mainstream discourse and anti-violence advocacy rarely engaged the concept of abolishing carceral systems as a serious political position; the abolitionist movement, however, has since achieved important growth. Calls to abolish Immigration and Customs Enforcement (ICE) and policing have since entered the mainstream with meaningful engagement, and calls for non-carceral “alternative” responses to gender violence have become more common in feminist anti-violence fields, a development made possible by decades of community organizing led by many people and organizations.
- 5 Regarding the relationship between demographics and philosophical areas of study, Anita Allen notes,

During the past 60 years, new fields of specialization have emerged—philosophy of race, African-American philosophy, Africana philosophy, black feminist/womanist thought, and so on. These have appeared in tandem with an increase in the number of professionally trained philosophers of black descent.

(Yancy 2018)

Allen’s observation resonates with a 2014 study asserting that, for Black philosophers who have earned, or are working towards, PhDs in philosophy, race theory, social and political philosophy, ethics, Africana philosophy, and feminist philosophy were among the most popular areas of specialization (Botts et al. 2014).

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# 21

## PHILOSOPHY AND ADDICTION

### Understanding and Transforming Suffering

*Peg O'Connor*

#### Introduction

My venture into what we now call “field philosophy” was and remains a consequence of my abiding commitment to the transformative potential of philosophy, which requires access to be democratized. Philosophy belongs just as much in the streets as it does in the academic halls. My field philosophy has taken place in academic conferences, community education programs, treatment centers, high schools, senior luncheons, and church basements. Philosophy belongs in op-ed pieces, blogs, podcasts, and whatever else people are reading, watching, or listening. As Wittgenstein noted to a young student, a philosopher who is not taking part in discussions is like a boxer who never goes into the ring (Drury 2017, 106). This volume explores some of the rings into which philosophers have stepped. I’ve stepped into the ring of addiction, both as a philosopher and as a person in recovery.

The structure my of essay is primarily chronological. I offer a description of the trajectory of my work on addiction, make some suggestions, and reflect on some of the lessons I have learned. My experience over the last eight years working with different publics on concerns about addiction prompts me to offer the following suggestions:

- Survey the field
- Expect skepticism and address it
- Identify a real need and look for what’s missing
- Beware of turf wars
- Educate yourself
- Host a conference or a community education program



- Speak to and write for different publics, and
- Keep it real.

I believe these suggestions and lessons learned are generalizable and useful to others embarking on the rewarding work of field philosophy. Such work can benefit both the fields in which we are working and the discipline of philosophy itself.

## Survey the Field

What is addiction? For centuries, addiction was regarded as the moral failure of an individual; it was the quintessential character defect. An addict was one who lacked the will or the courage to stop drinking or using drugs. With the advent of the discipline of psychology, the dominant explanation is that people drink or use mood-altering substances because we are unstable or troubled in deep and abiding ways. According to this explanation, it is the unresolved tumult of our inner lives that causes us to drink or use drugs to excess—even perhaps to the point of total annihilation. Risking such loss while leaving a path of destruction surely must be a kind of irrationality or insanity best addressed in a therapeutic setting. In contrast, most psychologists and psychiatrists treat addiction as a disease that has biopsychosocial influences, acknowledging genetic components but seeing these as only part of the story.

Recent studies in neuroscience have explored the relationship between brain chemistry and addiction. Addiction, these studies suggest, may be a consequence of a combination of genes and neurotransmitters. The move is to treat addiction as a chronic physical condition, one that needs regular monitoring and management, much like diabetes or asthma. The National Institute on Drug Abuse (NIDA), part of the National Institute of Health of the United States, defines addiction as

a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences. It is considered a brain disease because drugs change the brain—they change its structure and how it works. These brain changes can be long-lasting, and can lead to the harmful behaviors seen in people who abuse drugs.

*(National Institute on Drug Abuse 2018)*

It is important that these biological considerations be explored vigorously and carefully. At the same time, it is imperative that advances from other medical and nonmedical fields are not summarily rejected. As many feminists have chronicled for decades across many disciplines, once a condition or experience becomes medicalized, it becomes legitimized (Varney and Thompson 2015). The legitimacy often creates a new category of “experts,” and those who have



long-term familiarity with and knowledge about that situation are suddenly cast in the role of perhaps well-meaning but ultimately uninformed witnesses, dabblers, or in the worst case, interlopers.

In the field of addiction studies, psychiatrists and psychologists who once held epistemic authority are now finding themselves marginalized. Marginalized at least as much, if not more, are recovered addicts and any sort of treatment practitioner working from a 12-step model or other self- and mutual-help principles. By shifting the legitimacy away from those with personal and clinical experience, the medicalization of addiction may produce epistemic injustices, which in turn may affect the range of possibilities available for recovery or remission.

This is especially evident when it comes to medication assisted treatment (MAT) and is cause for great concern. Those struggling with opioid addiction may be caught in a catch-22 situation when it comes to MAT. Someone who expresses a desire or willingness to be treated with MAT may be accused of drug seeking. The person who is unwilling to use MAT may be accused of not taking their sobriety seriously (O'Connor 2018).

Another concern with these new studies—granting that most of them spring from very good intentions on behalf of the researchers—is that they first assume and then claim to prove that addiction is a problem of an individual's biology rather than the social environment they inhabit. More specifically, addiction is conceptualized as a problem in or with some people's brains. This obscures many of the very real environmental reasons why people start to drink or use drugs in ways that may begin casually but eventually progress to abuse and then dependence. Why do some people use and continue to use when consequences ranging from the undesirable to the catastrophic ensue? Why can't people just stop using or, to borrow a phrase from Nancy Reagan, just say no to drugs?

These "whys" are absolutely crucial both to understanding the trajectories of addiction and the possibilities of recovery or remission. Neither the social sciences nor the natural sciences alone are able to address them. I agree with Wittgenstein (2001, 6.52), who notes, "We feel as if even if all possible scientific questions be answered, the problem of life will not have been touched at all." Addiction most certainly is a problem of life. Philosophy has a long history of addressing problems of life; its possible contributions seemed obvious to me.

## **Expect Skepticism and Be Prepared to Address It**

When I first started working on addiction, just about every person who asked me about it had a skeptical tone. From nonacademics, I heard a worry that philosophy was too abstract or heady; it was hard to believe that philosophy could get to the down and dirty of addiction. The charge was that philosophy has nothing useful to offer people struggling with addiction, people connected to those struggling, or professionals who work with addicts. I realized very early



on that I needed an adequate response that was inviting and not alienating, all the while recognizing that the line between these responses is very narrow.

The answer to “Why philosophy?” is quite simple and clear to me, as someone who follows Wittgenstein. Philosophy needs to be *useful*. Addiction represents one of the greatest health challenges the United States has seen in quite a while. I argue that addiction is both a cause and a consequence of suffering in myriad forms. Addiction and recovery involve grappling with questions about the meaning of life, and no discipline has been doing that longer or better than philosophy (O’Connor 2016).

From philosophers, the skeptical tone had a sharper edge. More than a few have accused me of not doing “real philosophy,” or using the concepts of particular philosophers in distorted and even incorrect ways. Others have accused me of glossing over certain distinctions in a cavalier manner. Accusations like these can sting and carry very real consequences when it comes to publications, grants, job applications, and departmental collegiality.

Admittedly, I started my work on addiction after promotion to full professor at my institution. I knew there would be no repercussions for me as an individual faculty member “coming out” as a recovering alcoholic. But not writing about my own addiction before that moment was more a consequence of an uncanny ability to compartmentalize; I drew a very hard line between my work as a philosopher and my personal life. It is actually embarrassing that it hadn’t occurred to me earlier to write about addiction philosophically, because I recognized my study of philosophy as crucial to my own sobriety a long time ago. I also think that being an out lesbian feminist working in metaethics using Wittgenstein (a very odd combination, as many informed me, in the event I didn’t already know it) and applying for jobs in the 1990s helped me to develop a thick skin. While I cannot say I don’t care whether others think what I do isn’t real philosophy or is a perversion of philosophers’ work, I certainly care a lot less now that I have seen the practical good philosophy can do. I also see how this sort of work makes philosophy better and more relevant in our contemporary world.

## Identify a Real Need and Look for What’s Missing

Anyone who teaches at college level knows that there is alcohol on campus. This is true for “dry campuses” that prohibit alcohol as well as schools that have a party reputation. Alcohol remains the number one drug used on college campuses—in part because it is so easily and conveniently available. While colleges and universities tend not to use the more clinical language of substance use disorder and addiction, they do tend to use the expressions “high risk drinking” and “binge drinking.” A National Institute on Alcohol Abuse and Alcoholism report (n.d.) indicates that 20 percent of college students meet the criteria for alcohol use disorder. There are nearly 690,000 assaults and 97,000 sexual assaults



a year. Harder to gauge but still quite obvious is the impact of this high risk drinking on academic performance.

I teach at a residential liberal arts undergraduate college where I have served on the college-wide alcohol and drug education committee for many years. I knew firsthand that my school needed educational programming for those students who had received the college's most serious alcohol infractions. We had only punitive responses. I saw a concrete need that I could help to effectively address. A colleague and I worked closely with members of the student life division of the college. I drew upon the credibility and institutional capital I had as a faculty member who was very out about being in recovery. My colleague and I developed a 16-week curriculum that was covert moral philosophy in the form of facilitated discussion sessions. We named the program onGUARD, which stands for Guided Understanding of Alcohol's Real Dilemmas. The curriculum has main four categories for exploration:

- Relation to Self and Self-Knowledge
- Relation to Others
- Skill Building
- Building for a Future.

In addition, we have a category called "Drinking Behaviors/Culture" that we use as needed. We created these categories as we came to see patterns in the behaviors, questions, and concerns of onGUARD students over several years. We also see these categories as complementary to the mission statement and core values of the College. Though designed within a particular location, my colleague and I intended the curriculum to be adaptable to any collegiate or even high school setting.

We also partnered with an in-patient treatment center that was part of the Minnesota Department of Human Services to provide timely chemical use assessments that went to certain college officials. A chemical use assessment involves a trained alcohol and drug counselor interviewing a person about her use of alcohol and drugs. The counselor also interviews at least two people identified by the person undergoing the evaluation. On the basis of these interviews, the counselor offers a determination of whether the person has no substance use disorder or has a mild, moderate, or severe substance use disorder. In the past, students were allowed to have an assessment administered by a professional of their choice. This presented various problems, including wide variation in quality of the assessments and massive delays in receiving them. By establishing a partnership with a treatment organization that was literally down the street from campus, we ensured consistent, timely, and high quality assessments.

Facilitating this partnership was a new undertaking for me; there is no training for this skill in graduate school. I had to step back from the initial overtures lest I be seen as the rogue know-it-all faculty member by the student life



division. It was useful for me to watch my colleagues in student life take the lead on this. They were far more accustomed to working in conjunction with local resources. We established a productive and mutually beneficial arrangement. Our venture was a coup for both the College and the treatment center. Things went well with the student life division of the college. Until they didn't.

## **Beware of Turf Wars**

The College's Counseling Center raised objections to our program. They expressed the concern that we were doing therapy without the requisite educational and experiential background. They worried that we received the chemical assessments when, in fact, we explicitly said we did not want to see them. We argued onGUARD is an educational program; it is not therapy. Rather, its values-based curriculum encourages students to explore who they are, how they act, and what they hope to be. Many of the onGUARD sessions are highly structured, and run much like a discussion-based academic class. Students work in small groups and often come back together to report to the group as a whole. There are strict rules not just for attendance but for active participation. We stress responsibility for the integrity of the group and ask students to lead discussions, ask questions, write on the boards, etc. The structure is very student-centered. In addition, we all abide by a code of confidentiality that what is said in onGUARD stays in onGUARD with the exception of requirements related to Title IX. Building trust is crucial in this setting.

Challenging the position of the Counseling Center that only qualified therapists or psychologists should talk about certain "sensitive issues," I argued that I would need to throw out a significant portion of our Gender, Women, and Sexuality Studies curriculum and much of my applied ethics course. That conclusion was unacceptable.

This early turf war provided a valuable lesson that even though there is agreement about a real need, there will be disagreement about how to meet it. That disagreement may be compounded by assumptions that only certain people or professions are capable of meeting that need. Someone who crosses over from another field may be seen less as an ally and more as a dabbler, or even as an unwelcome interloper. While most certainly a disciplinary battle, it was also an unflattering revelation about philosophy's arrogance as well as some personal arrogance. I return to this issue below.

## **Repurpose Projects**

My colleague and I presented the onGUARD curriculum at a conference sponsored by the United States Department of Education. While the program was well-received and people expressed envy about our relationship with the Minnesota Department of Human services for the assessments, some expressed a



concern that the program was too labor intensive and hence costly. My colleague and I had done all this work without compensation and not as part of our official responsibilities. In nearly every college, drug and alcohol programming resides within the division of student life, which is expected to deliver drug and alcohol education to the masses at a more or less reasonable cost. Online programs deliver the material with maximum efficiency. At my college, incoming students are not allowed to register for their courses until they complete it. While we would like to distribute onGUARD to other schools, an online format presents challenges to its face-to-face discussion-based format. This distribution problem at the high school and collegiate level is a tough nut to crack. It made us realize that we needed to think beyond academic institutions.

My colleague and I tacked in a new direction and began to adapt pieces of the curriculum for half- or full-day workshops in treatment facilities or other recovery-oriented venues such as self-help groups, which directly connected us to treatment professionals and people early in recovery or remission. I've pursued this route working with a treatment center that offers in-patient care followed by a transitional program with housing for college students who hope to work their way back to full-time enrollment. Getting back to college is quite often the goal of students who have been expelled, suspended, or taken a medical leave of absence because of a substance use disorder. As a faculty member for nearly 25 years, I'm well positioned to help them with the academic challenges. As a person who was actively addicted and tried repeatedly to quit while in college, I also have credibility with students about the difficulties of trying to be sober in an environment where drinking is largely regarded as a vital part of the college experience.

My work with this particular treatment center was a consequence of a personal connection. If I had the time or know-how, I'd consider marketing this training more vigorously. However, there is a tension when it comes to addiction and treatment related work. It seems morally problematic to make money from others' misery and suffering. At the same time, my intellectual labor and time have to be worth something. Exacerbating this tension is the exponential growth of for-profit treatment centers. Business is booming in an industry that is virtually unregulated and populated with some profiteers. Some treatment centers are preying on patients, offering loans to cover treatment expenses, and charging exorbitant fees for drug testing. Before I say "Yes" to speaking at any treatment center, I exercise as best I can due diligence to find out about it. I do not want to be party—even inadvertently so—to the exploitation of people struggling with addiction.



## Educate Yourself

As philosophers, we have a facility with critical thinking skills. We can identify hidden, weak, or unjustified assumptions in an argument, push positions to their logical or practical conclusions, identify defining values, find common ground, open up new options, and, as Wittgenstein would say, make strange the familiar. However, a set of critical thinking skills is not a substitute for knowledge of a field. I realized early on that my skills and knowledge as a philosopher and my experiences with addiction would only go so far.

I needed to vastly expand my knowledge of addiction and recovery research as well as popular understandings of that research. The two can be quite different. I needed to understand the defining questions, entrenched disputes, dominant theories, emerging trends, newly opening fault lines, and the major players in the field. I needed to be able to identify the dated views and not make the mistake of addressing them when the research had moved far beyond. I needed to be a cartographer. I approached my education in this field as seriously as I had my graduate education in philosophy. I read widely, ranging from monographs and academic journals to memoirs and news articles, listened to podcasts, watched documentaries, attended conferences, and took online courses. No matter how much I learned, there was (is) always a concern that a fraud alert will sound. In a culture that values expertise acquired through formal education (as I discovered with our own Counseling Center), there is an added burden to prove one's knowledge.

It was interesting becoming a student of addiction research. I have always known philosophy carries a disciplinary arrogance. This may be a consequence of the discipline's longevity; ours is one of the oldest. Many of the natural and social sciences have roots in philosophy. The arrogance may also be a legacy of philosophy's practitioners. It is a field that continues to be dominated by white males. White women and men and women of color remain underrepresented. Graduate school is where some of us become genuinely arrogant while others fake it in order to be taken seriously or appear legitimate. Our college's Counseling Center scratched my surface and my arrogance seeped through. While I cannot counter the actual or perceived arrogance of our discipline, I could address my own by cultivating humility. One way I did this was by becoming a student of taekwondo. I was the only adult in some classes; it was late-forties me with my posse of children who would regularly correct my blocking, striking, and kicking techniques. It is hard to be arrogant when several adolescents say to you, "Miss O'Connor, you are going the wrong way." Humility also helped me to cultivate patience about all I did not and still do not know about addiction and treatment research and the accompanying public health, public policy, and legal considerations. It is an achievement and not a cop-out to acknowledge that I am doing the best I can and now know when to consult others who are working more closely on a particular dimension of the problems.



## Host a Conference/Workshop/Community Education Program

Most philosophers have, at some point, served on a program committee for a conference. We've set themes, issued calls for papers, and created programs. Seeing connections and creating coherence are practical skills we bring to the conference table. Hosting a multi- or interdisciplinary conference at your home institution and drawing upon local expertise is an excellent way to embark on field philosophy. My school, Gustavus Adolphus College, enjoys a distinct relationship with the Nobel Foundation in Sweden. We are the only institution in higher education that can host a conference under the auspices of the Nobel Foundation. Every fall for the last 53 years, we've hosted a two-day conference on an issue at the intersection of science and society when we have at least one and sometimes several Nobel Laureates on campus. I approached the conference director about the possibility of a conference on addiction and he fast-tracked the topic. This is where my cartography of the field was vital yet significantly incomplete. Establishing the defining questions of the conference, inviting speakers who approach addiction from different perspectives, and bridging the stunningly wide gap between addiction researchers and treatment researchers was challenging. It is rare for addiction researchers and treatment professionals to be in the same shared intellectual and physical space. Had the Nobel name not been on the conference, I am not sure that we would have had the high-powered speakers we managed to attract. Regardless, I was interacting with some of the most high profile researchers on addiction. It required that I be brave and intrepid (or at least fake it) and able to stifle the fraud alert that was sounding loudly, at least in my own head.

One of the panels for the conference involved members of our county drug court team. Drug courts are at the intersection of law, medicine, economics, politics, and public policy. That intersection just keeps getting busier for reasons the 2013 National Survey on Drug Use and Health makes clear. Nearly 25 million people in the United States meet the diagnostic criteria for addiction; 24.6 million people or 9.4 percent of the population aged 12 and over have used illegal drugs including marijuana. Given these facts it isn't surprising that, according to the Bureau of Justice, the highest number of arrests in 2014 was for drug violations. Of the 1.5 million arrests, the vast majority were for possession. There were also more than 1.1 million arrests for driving under the influence.

The first drug court was implemented in Miami-Dade, County Florida in 1989 as an alternative to incarceration. According to the National Association of Drug Court Professionals, more than 2,600 drug courts have been established in the United States. While there is significant variation between drug courts, they all share a foundational assumption: drug use and addiction primarily drive the criminal activity. Address the drugs and the criminal activity will dissipate.

The presiding judge in our drug court is skeptical about medication assisted treatment (MAT) as part of drug court. She is not alone. At present, only 55



percent of drug courts in the United States allow for MAT despite the fact that use of opioid/heroin/fentanyl and carfentanil continues to grow and that MAT is the treatment protocol recommended by NIDA, an office of the United States government. There are layers to the skepticism. One of the thickest is that MAT merely switches the addiction from something illegal to something legal. There is no abstinence, which in this context means the absence of drugs. Another layer of skepticism stems from the fact that some of the medications used in MAT are themselves opioids, which may mask illegal usage of other opioids. Finally, some of the substitution drugs may themselves be used and abused as well as bought and sold. Facing such challenges, many presiding judges of drug courts make the decision not to use MAT.

The judge and I are engaged in an ongoing discussion about the use of MAT. I find myself drawing heavily on my critical thinking skills and needing to be on my toes because judges can fire questions hard and fast. Our discussions seem like verbal taekwondo: each defensive move is paired with an offensive one. Some of our discussions have wrestled with the claim that MAT merely produces a switch in addiction. Isn't one still dependent on a drug that is an opioid? We've explored if and how dependence on an opioid administered under a physician's care is different from the dependence someone may have on insulin or medications to treat high blood pressure. We've asked individual addicts whether someone who is under the care of a physician and able to function is in a better state than someone who is using illicit drugs? We've veered into a discussion about the wellbeing of communities. Aren't communities better when addicts are not shooting up, overdosing in public, and leaving their needles in public spaces where innocent people may come in contact with them?

At the invitation of the presiding judge, I have met several times with the drug court team. I look forward to attending the team sessions and drug court itself more regularly. While a presiding judge is a necessary feature of drug court, it is not sufficient. Drug courts are only possible with the support of prosecuting attorneys, the police, and probation officers. They also require funding from counties. I need to understand as best I can these dynamics, challenges, and competing demands. One perennial concern is funding; drug courts cost more more than regular court proceedings because they are labor intensive. One of my tasks is to frame arguments to rebut the charge that drug courts are more expensive. It is true that drug courts have higher upfront costs, but in the long run they have better results. Drug courts are also receiving pushback from those who want more punitive sanctions for drug violations. In some ways, drug courts seem to fly in the face of recent recommendations from the United States Department of Justice to stiffen sentences for drug-related crimes. Here, too, my skills as a philosopher are crucial. The judge and I hope to present to the National Association of Drug Court Professionals in 2020. Perhaps just as important, we will need to continue to make the case for drug courts at the local county level.



## Speak to and Write for Different Publics

Addiction has legal, economic, and political dimensions that intersect with racist, sexist, classist, and ableist dimensions, among others. I realized very early on that I needed to find venues for writing about these different dimensions. I had to calibrate my writing and speaking style to my new audiences. To make it through graduate school, we had to learn to write in a certain way and to use a voice of authority. I now had to learn how to write in a different manner—one that did not alienate possible allies and reinforce every negative stereotype about academics and philosophers. I had to give myself permission to hit the eject button on the hostile interlocutor we internalize as professional philosophers. We often get so busy anticipating objections and counter-examples that we lose the thread of our arguments. I had to start writing as if people would be reading and listening charitably. This was how I was going to connect with people working on the front lines.

Knowing that the online presence of *Psychology Today* was immense, I sent a query to the editor and explained my background and what I might be able to offer their readers. She agreed to my blog, “Philosophy Stirred, Not Shaken.” Clever martini references aside, this blog has led to a number of collaborations with people working on some of the same pieces of the addiction puzzle. Over the last five years, I have written 70 pieces for this series and have more than 1.2 million total views. This is a reach I never imagined in my wildest dreams, and surely beyond what a normal “disciplinary” philosopher can hope for.

I have a new project in its infancy—working with a former sex crimes prosecutor to create a training for police officers and prosecutors working with victims of sexual assault who were in a blackout. She had read my piece, “Sexual Assaults, Blackouts, and Slut Shaming,” and reached out to me because it was the only piece she had ever read that explicitly addressed blackouts in conjunction with sexual assault. When in a blackout, a person is still conscious and walking, talking, and doing all sorts of things. However, a person’s cognitive capacities and decision-making are severely compromised. With blackouts, memories are often fragmented, disjointed, or lacking entirely. In almost every way, someone in a blackout is a very unreliable witness, which may produce frustration or disbelief in the people charged with investigating. There is often a gap in their understanding of blackouts, which leads to a lack of empathy or worse.

Learning that a victim was in a blackout provides an opportunity for a brief intervention, since blackouts are often a reliable indicator of a serious problem. It is a time when referral for a chemical assessment might be at least a little welcome so long as it is in no way construed as blaming the victim (for having been so under the influence) and as a punishment of sorts. This is a very delicate balance to strike and so creating some sensitive and compassionate training programs is crucial.



My field philosophy work on blackouts and sexual assault rests on central issues in ethics, though questions about reliability and testimony have a home in epistemology as well. Responsibility is a crucial concept in sexual assault, especially when both victim and perpetrator have been drinking or using drugs. Is someone responsible not only for what she does but what happens to her after she drinks or uses? Will victims tend to blame themselves? Very interesting to me is the matter of self-forgiveness, which is largely undertheorized in the philosophical literature on forgiveness. In the context of sexual assault, where there is so much victim-blaming (even or especially by the victims themselves), how is self-forgiveness even possible? There is a great need for accessible work on responsibility and self-forgiveness that the former prosecutor and I hope to address.

## Conclusion: Keep It Real

The particular methods I adopted such as surveying the field, identifying needs, gaining deeper knowledge, hosting conferences, and writing and speaking to different publics helped me to forge connections between philosophy as an academic discipline and the broader world. In the field of addiction, medical, legal, political, and social realities meet the epistemological, ethical, and ontological concerns of philosophy. These can inform and transform each other. This is the strength of field philosophy.

Field philosophy has been exhilarating and uplifting. It can also be exhausting and daunting. This may be a consequence both of the nature of field work and of the particular field of addiction. As my work continues, I find myself revisiting or making a new survey of the field because the field may change regularly. The needs I identified in my initial survey have changed; some have receded while others have moved to the forefront. As much as I revisit my survey and identify real needs, I must also re-commit to helping to meet those needs. In the field of addiction, those needs attach to real people who are suffering in myriad ways. My work as a field philosopher is to make whatever small contribution I can.

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# 22

## FORMAL EPISTEMOLOGY IN A TROPICAL SAVANNA

*Sahotra Sarkar*

### Introduction

As a philosopher who also practices ecology and has a small laboratory, conservation biology and disease epidemiology have been two areas that have afforded opportunities for testing the relevance of philosophical methods in the field, particularly decision theory as reconstructed within formal epistemology. What follows is the story of one such episode, an attempt to use decision analysis to support a complex multi-criteria, multi-agent decision to be made concerning land use in a remote region of Indonesia. This example shows both the promise of these methods and the practical difficulties faced in their attempted application.

I begin with some personal remarks explaining my involvement in this project. In 2003, when Branden Fitelson and I began organizing the Formal Epistemology Workshops (FEW), our initial concern was mainly with reinvigorating formal work in fields such as confirmation and theory choice which had once concerned key figures such as Keynes, Ramsey, Carnap, Reichenbach, and others but had come to be neglected in the recent philosophy of science.

As we worked to develop formal epistemology, I initially felt a tension between its embrace of abstract examples divorced from science in practice and the work that my laboratory did. We were involved in applied work in disease ecology and conservation science. In both cases we worked extensively in field-based projects that involved working with local communities with multiple stakeholders. However, it soon became apparent that, beyond purely ecological scientific analysis, we were necessarily placing ourselves in policy contexts through our work, where the best feasible choice had to be made between feasible but imperfect alternatives.



Consequently, we began to see that our work was essentially falling within the domain of decision analysis—that part of formal epistemology that deals with the rationality of choice and action. As will be seen below, we were dealing with particularly complex decision problems, sometimes technically termed “wicked problems,” because even the problem formulation is open to dispute. For conservation problems, we developed a framework that relied heavily on multi-criteria analysis. The example below discusses a case where this theoretical framework was translated into practice. For us, this experience has demonstrated the mutual value of interaction between philosophical theory and practical policy, but it has also led to a cautionary strategic attitude about developing collaborative partnerships with actors from outside academia, in particular with large non-governmental organizations (NGOs) and corporations.

## Background

To start at the origins of my interest in biodiversity and conservation science: when conservation biology first emerged as an organized discipline in the United States in the late 1980s, two publications were particularly important for many of us who had long been politically involved in attempts to conserve biodiversity. The first was Michael Soulé’s manifesto “What is conservation biology?,” which appeared in *BioScience* (Soulé 1985) a few months after the founding of the Society for Conservation Biology (Soulé 1987). The second was Dan Janzen’s exhortation to ecologists, “The future of tropical ecology” (Janzen 1986). Janzen’s rhetoric was powerful. In Costa Rica, where he mostly worked, as well as elsewhere in the tropics, he witnessed natural habitats disappearing under pressure from powerful socio-economic forces. If biologists wanted to continue having tropical nature to “biologize” about, Janzen argued, they must undertake the political activism necessary for conservation. They must do so by embedding themselves and propagating their conservationist imperative within local cultures. There was no alternative. It was a demanding and compelling vision.

To a philosophy graduate student, as I then was, the contrast between Janzen’s and Soulé’s pieces could not have been greater. Soulé, like Janzen, also conveyed a sense of urgency by declaring conservation biology to be a “crisis discipline,” but he then proceeded with great pomp to produce hyper-theoretical “postulates.” He had two types of postulates, functional ones describing the state of the world and normative ones explicating an ethic of conservation. The functional postulates were relatively innocuous claims about ecology, how co-evolution has taken place, how ecological processes may enter chaotical, dynamical regimes beyond some parameter values, and so on. None were either very original or controversial. What held my attention were Soulé’s normative postulates. Though Soulé invoked the hallowed name of the philosopher Arne Naess, who had once been part of the Vienna Circle, his normative postulates were *ex cathedra* pronouncements with little supporting argument.



Ecological complexity is good, Soulé declared. So is evolution. But, I remember wondering, evolution consisted of three main processes: adaptation, diversification, and extinction. If evolution is good, presumably all these processes should also be good. But wouldn't finding extinction good be awkward within a conservationist ethic? Unless, perhaps, extinction was supposed to pave the road for further evolution. From Soulé's account, there was no way to tell: there was no further discussion. More controversially, Soulé simply announced that biological diversity had intrinsic value. He did not even seem to understand that, here, he was treading into well-worked and controversial philosophical territory, and that claims like this should not be made without adequate defense. Perhaps even more troubling was that Soulé's ethic had no place for human values and interests. Like most other Northern conservation biologists of that decade, he harped on the biodiversity that was at risk in the global South. But he did not once acknowledge a need to engage those Southern populations that would bear the brunt of his proposed policy measures.

In contrast to Janzen's inclusive vision, Soulé's normative program was imbued by the values of just one faction of North American environmentalism. This faction styled itself *deep ecology*, with the honorific "deep" presumably intended to indicate that adherents were privy to some profound insights inaccessible to ordinary ecologists and environmentalists who were concerned, e.g., with resource depletion or pollution. Deep ecologists often gloated on their distaste for human values and interests, putting what they regarded as Nature above mere humans. In 1989, this ideology was subjected to a blistering attack—"Radical American environmentalism and wilderness preservation: A Third World critique"—by Ramachandra Guha, an Indian anthropologist visiting the Yale School of Forestry and Environmental Studies. In my assessment, very little of Soulé's conservationist ethic survived Guha's attack, which became one of the most anthologized contributions in the emerging discipline of environmental philosophy. My rejection of Soulé's vision of conservation biology paved the way to eventually viewing conservation problems as decision problems rather than ecological problems.

### ***Zum Wissenschaftskolleg***

Even though I taught, at McGill University in 1995, what was one of the earliest undergraduate courses in the philosophy of conservation biology, I did not anticipate doing work in conservation biology. However, biodiversity protection remained a guiding political goal in my environmental activism from that period. That changed when I spent the 1996–1997 academic year at the *Wissenschaftskolleg zu Berlin* (WiKo for short). The Kolleg encouraged free-ranging discussion and collaboration among its Fellows and the time spent there was intellectually rewarding. While there were about 40 resident Fellows every year, many others came for shorter periods including those from earlier years. Two



such Fellows who visited WiKo in Spring 1997 were Guha and Chris Margules, then working at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia. Thanks to their presence I turned from ongoing work on the history of evolutionary genetics to problems of biodiversity conservation.

With Guha's encouragement, I completed a philosophical critique of wilderness preservationism that contrasted it with biodiversity conservation (Sarkar 1999). My interactions with Margules were more significant. During the 1993–1994 academic year at WiKo, Margules had been part of a Working Group, "Biodiversity Reserve Selection Methods," that had brought together experts from Australia, South Africa, and the United Kingdom. Together, this group began to develop a framework for biodiversity conservation that came to be called "systematic conservation planning" (Sarkar and Margules 2014). Margules and Pressey (2000) went on to publish the foundational document for the new approach shortly afterwards.

The central problem of systematic conservation planning was the selection of a set of areas earmarked for biodiversity conservation. Originally, these areas were presumed to be reserves but, as a few of us soon emphasized, reservation is not the only valid approach to conserving biodiversity. Moreover, as the philosophical critics of wilderness preservationism had been pointing out for over a decade, creating reserves was associated in many cases with involuntary displacement of resident peoples. Consequently, the term "conservation area" came to replace "reserve" (Sarkar 2005). Moreover, since it was also recognized that successful conservation required engagement with the entire spatial matrix of the region, and would be futile if restricted only to selected conservation areas, the term "prioritization" came to replace "selection." The prioritization of conservation areas in a landscape or seascape remains central to systematic conservation planning today.

In Berlin, Margules and I realized that conservation area prioritization is a decision problem. We had a set of feasible alternatives, the potential sets of conservation areas. Here, "feasible" means that each such set satisfies constraints such as the total budget for conservation measures. The criterion by which performance was to be measured is the representation of biodiversity features. Because of the large size of the data sets typically required for such decisions (e.g., hundreds of thousands of habitat patches and thousands of species), computer-based methods were needed. These, in turn, required the development and use of software decision support tools. Margules and other Australian researchers, as well as Paul Williams from the Natural History Museum in London, had already begun developing such software but there was much more that could be done. I began to see that my background in decision theory as a philosopher (as well as experience in computer science) could be useful in systematic conservation planning. The context was set for a potentially fruitful interaction between formal epistemology and conservation science in the field.



## Decision Support and Algorithmic Area Prioritization

Two years later, I arrived at the University of Texas with the intent of developing and testing protocols for systematic conservation planning. Our first decision support software tool was ResNet which incorporated methods that had been used to identify the ways in which the conservation area network of Québec could be improved (Sarakinis et al. 2001). The recommendations were partly implemented insofar as some of the new areas we prioritized for conservation were designated for that purpose. However, the extent to which our proposals were explicitly used has never been clear to me. The likely scenario is that they were made part of the recommendations developed by The Nature Conservancy, which had provided us with much of our data in return for our results. However, there was no explicit acknowledgment of systematic conservation planning by the Québec authorities.

ResNet was originally developed jointly with Anshu Aggarwal who had worked with me at Boston University in the early 1990s and had continued to help in software development for various research projects. In Texas, Justin Garson, a philosophy graduate student, was responsible for many extensions and revisions. Garson also worked on developing a suite of other software decision tools for biodiversity conservation (Sarkar et al. 2005). Another philosophy graduate student, Chris Pappas, made further improvements to these decision tools. Trevon Fuller, who began as a philosophy graduate student but later switched to biology, developed software to optimize spatial connectivity between conservation areas (Fuller and Sarkar 2006).

Meanwhile, Margules and I continued our collaboration to write the first textbook of systematic conservation planning (Margules and Sarkar 2007). Our methods were adopted and used by the laboratory of Victor Sánchez-Cordero at the Instituto de Biología of the Universidad Nacional Autónoma de México (UNAM). Around this time Margules left CSIRO to head the Asia-Pacific Division of Conservation International (CI), which led to the possibility that our methodologies would find use in optimizing conservation decisions in the field, something that had, at best, only been partly achieved in Québec. The planning exercises in México as well as the CI-sponsored one from Indonesia (the case study of this chapter) are important because they provide feedback from explicit attempts at using philosophically-based decision theory in practical conservation contexts.

## Values and Multiple Criteria

The software decision support tools that we and others were developing implemented algorithms to solve complex computational problems. As I have pointed out elsewhere (Sarkar 2012a), much of the theoretical work in this part of conservation biology at the time consisted of algorithm design. In the 1990s, the



algorithms that had been developed by conservation biologists were largely restricted to attempts to identify the smallest possible area for conservation that would ensure adequate protection for biodiversity. There were two versions of this problem. Both required that quantitative targets be set for each biodiversity feature such as species or ecosystem to be conserved. The first “minimum area” problem asks that all such features be included, up to their targets, in a set of conservation areas in as small a prioritized area as possible. The second “maximum representation” problem asks that as much of the features (up to their targets) be included as possible within a fixed budget constraint. It turned out that the first problem was much easier to solve than the second. ResNet resolved typical data sets in a matter of seconds, as did many other decision support tools for systematic conservation planning (including C-Plan, Marxan, Target, and WorldMap).

Between 1999 and 2010, I routinely taught systematic conservation planning both in Integrative Biology and in environmental philosophy courses at the University of Texas. In these classes, the conceptual framework as well as the methodologies of systematic conservation planning were subjected to relentless philosophical scrutiny. This attention led to three interesting innovations in how we conceived of the methodology of systematic conservation planning. First, students were fast to point out that quantitative targets for the inclusion of biodiversity features such as species were arbitrary insofar as that they had no credible basis in science. Should 10 percent of the habitat of a species be conserved? Or 15 percent? There was no ecological criterion that decided such choices. (This problem was also used by conservation biologists to criticize systematic conservation planning [e.g., Soulé and Sanjayan 1998].)

Class discussions led to the realization that these targets reflected normative societal judgments about acceptable risk and were very similar to judgments about how to categorize risk for species, namely, when they should be labeled as “endangered,” “threatened,” and so on. These are normative value judgments—what risk we, as a society, find acceptable and to what extent. Our response in developing software was two-fold. We enabled—and encouraged—the exploration of a variety of possible target sets. We were explicit in noting that the choice of targets should be made through deliberation by stakeholders making conservation decisions. As time went on, I began emphasizing that we were devising decision *support* tools, *not* decision *making* tools. In an introductory text on environmental philosophy that I published at the time (Sarkar 2012b) I tried to bring these conceptual problems to the attention of philosophers. The point that I tried to emphasize is that philosophy of science has much to contribute to the construction of a satisfactory framework for systematic conservation planning.

Second, though we had realized that the maximum representation problem was computationally more complicated than the minimum area problem, we had implicitly thought of them as “conversely” related to each other—in the



mathematical terminology of computer science, as “dual” problems. We now came to realize that this was not the case, because of the ambiguity in the phrase “as much of the features.” For instance, should we maximize the number of features that met their target? Or the extent to which all of them met their targets? There was no good reason to treat any one of the formulations as necessarily being the correct one for all contexts. Our software began to offer multiple options. The ResNet family of programs was not sophisticated enough for addressing all these options. A new approach to software was needed, and Pappas was the first to propose that we turn to a new family of metaheuristic algorithms, most notably, tabu search. (Tabu search is a metaheuristic algorithm for optimization.)

The third problem was much more serious; for me, it brought into question much of the work we had been doing in systematic conservation planning, which had originally appealed to me because of my dissatisfaction with Soulé’s framework for conservation biology—especially his treatment of normative questions by rejecting human values as irrelevant or illegitimate. Yet, we had not broached these values at all in all the protocols for conservation decisions we had developed. This sense of failure was aggravated by a realization that, if any specialty should be particularly adept at the kind of normative analysis that was being called for, it should be philosophy.

Once again, I turned to the literature on decision theory. By 2002 my laboratory had begun a systematic review of the relevant methodologies that were scattered across the economics, operations research, and philosophical literature, often classified under acronyms such as MCDM (multiple criteria decision making). The problem now was the wide variety of methods that were available. Working with me, a philosophy graduate student published a critical review with recommendations for use by conservation biologists (Moffett and Sarkar 2006). Garson and I developed a protocol in which ResNet would be used to generate a portfolio of scenarios which were all adequate for biodiversity representation. We then subjected these scenarios to multi-criteria analysis using *Dominance*, that is, retaining only non-dominated (or Pareto-optimal) scenarios. When this strategy still left many scenarios as acceptable, we recommended deliberation (Sarkar and Garson 2004; Sarkar 2012b). The philosophical problems raised by complex decisions led me to recommend rational deliberation among stakeholders to the fullest possible extent before the use of formal methods.

With regard to techniques of multi-criteria analysis, Jim Dyer at the University of Texas convinced me that the only reasonable one to use beyond Dominance is multi-attribute value theory (MAVT). This was the only method that was fully consistent with standard utility theory. But its use also required the satisfaction of some subtle conditions on how problems must be formulated. It became clear that trained decision analysts would be needed to advise decision makers in the field. We began large training exercises. Some of the largest were



held at UNAM in Mexico City in 2007 and 2008, and several groups in Mexico became the first to use these methods. Meanwhile, Michael Ciarleglio, an applied mathematics graduate student at the University of Texas, developed ConsNet, a software package based on tabu search that supported multi-criteria decisions (Ciarleglio et al. 2009a). This was the software package that we subsequently used in both Mexico and in the Indonesian case that will be discussed next. Developing the package and elucidating a protocol for it required collaboration between economists, mathematicians, and computer scientists besides philosophers and ecologists—this is what it took to get our work into the field.

### **With Conservation International at Merauke**

Margules reenters this story in 2008, by which point he had become Vice-President of CI for the Asia-Pacific region. CI had become one the biggest, richest, and most powerful non-governmental conservation organizations since its founding in 1987. But we also knew that CI was perceived very negatively by a wide array of conservation groups in the South. So, while my laboratory was excited by the prospect of applying our methodologies in the field, we approached the potential collaboration with trepidation. As it turned out we were justified in both our excitement and our trepidation.

In 2008, CI had contracted with the Medco Foundation, established by the Medco group (an Indonesian conglomerate founded by Arifin Panigoro), to devise a land use plan for an industrial forestry plantation concession obtained by Medco in the Merauke region of Papua Province in Indonesian New Guinea. The area was tropical savanna, more like northern Australia than the more famous wet evergreen forests found elsewhere in New Guinea. We would soon be practicing formal epistemology in this tropical savanna.

Medco intended to grow trees for pulp on its concession. However, it claimed to want to do so sustainably and while conserving biodiversity. According to CI personnel, the goals were to achieve sustainability of forestry production, conservation of biodiversity, maintenance of ecosystem function, and satisfaction of the interests of the indigenous communities using the habitat. These were nine Marind communities: Baad, Buepe, Kaiza, Kaliki, Kaptel, Koa, Senegi, Wapeko, and Wayau, all of which had traditional lands that intersected with the concession area. Medco made an initial commitment to exempt 40 percent of the concession area from plantation farming; however, this 40 percent included land used by the nine communities. Margules wanted to use our new multi-criteria analysis techniques to develop a portfolio of spatial plans that incorporated all the goals. This portfolio was then going to be presented to Medco for a final choice.<sup>1</sup>

The planning process began in Jakarta in December 2008 with a meeting that included Medco, CI representatives, other stakeholders, and members of my laboratory as decision analysts. At the Jakarta meeting, all stakeholders



identified by CI were present except, critically, representatives of the nine communities affected by Medco's proposed development who (in CI's judgment) could not be included at this early stage for logistical reasons. However, there were supposed to be further iterations of the Jakarta meeting with their participation—meetings that never happened. CI personnel took it upon themselves to represent the communities' views.<sup>2</sup>

The absence of systematic and routine engagement with local stakeholders led me to worry whether Medco, aided and abetted by CI, was engaged in greenwashing. Although I never had meaningful contact with Arifin Panigoro, long conversations with several members of his family and other associates led me to give Medco the benefit of the doubt. Two reasons were most important. First, in the Indonesian context, Medco seems to have no motivation for greenwashing. There were strict environmental regulations (for instance, the protection of all wetlands, which constrained our plans severely, as will be seen below). But, beyond that, there was no public environmentalist constituency that needed appeasement through greenwashing. Second—and this reason was particularly compelling for me with my Indian cultural background—upper echelon Medco personnel seemed genuinely concerned about doing something beneficial for the *Indonesian* environment. For them it was a matter of national pride.

Returning to our task of decision support, the first task as decision analysts was to understand the context and to chart the goals and values of the stakeholders. For formal multi-criteria analysis, this involved the construction of an objectives hierarchy (OH) that established the fundamental objectives of the analysis and the subsidiary objectives under each of them. In many ways, this was the most interesting part of the process since it had to be done through group deliberation. Most of the time at the first meeting in Jakarta was spent in explaining the process and developing what we took to be a very preliminary version of the objectives hierarchy.

Given our original briefing by CI, we expected the fundamental objectives to be sustainability, biodiversity, ecosystem functioning, and community interests. To our surprise, at the instigation of Medco representatives, sustainability morphed early into production suitability of a patch of habitat for plantation farming (though, admittedly, farming strategies throughout were supposed to be sustainable in the long run). Even more surprisingly, at the insistence of a variety of local stakeholders, ecosystem functioning was subsumed under biodiversity conservation. It was clear that these stakeholders had a conception of biodiversity that was less to do with entities (as in most of the North) than with processes. Spatial configuration was added as a fundamental objective while community interests remained unaltered.

As external analysts we observed and recorded these discussions but did not participate in them except to clarify technical issues about multi-criteria analysis when asked. A point that we emphasized repeatedly was that we were not



stakeholders because we were not part of the local communities affected by the decisions (and not even directly affected in some other capacity). We did promote biodiversity conservation in general but, for me, biodiversity is a local value and not a matter of global heritage—for more on this, see Sarkar (2012b). Even though we were philosophers, because of this intentional disengagement with any attempt to influence the outcome of local discussions of values, we did not enter into normative discussions that we witnessed. Perhaps we would have done so had there been an anthropologist present in the group. One of the lessons that I learned from this work was that, in contexts where there are wide cultural differences, we must have collaborations in place with anthropologists.

As expected, the stakeholder discussions generated complex hierarchies of sub-objectives under each fundamental objective. For instance, under community interests, there were nine sub-objectives at the next lower level, one to embody the interests of each of the nine communities. Below these were the goals of each community and these diverged across the set of communities. For instance, while all the other communities valued grassland within their areas, the Buepe did not. Under biodiversity, ecosystem services were incorporated using a single lower sub-objective: maintenance of all wetlands (which was a hard constraint in the sense that it was required under Indonesian law).

The most interesting structure that emerged was the hierarchy under the spatial configuration fundamental objective. This underwent modification after communities' views had been canvassed by CI. There were two sub-objectives: the first was based on biological criteria and promoted both by CI and the communities; the second, guided by economic criteria, was promoted by Medco which wanted areas slated for production to be as close to transportation links as possible. The biological criteria included standard ecological ones such as the size of individual conserved patches and the connectivity between them. However, an unexpected preference emerged from community discussions: the communities wanted conserved areas to be as close to habitation as possible. Though we did not challenge this preference while incorporating it, I pursued it further in informal discussions: the preference reflected the practice of older inhabitants from villages walking to forests to collect non-timber products. Nearby forest persistence was an important community goal.

Shortly after the Jakarta meeting, CI began surveys of the concession area and organized regular field trips to Merauke. This work was supervised by Neville Kemp of CI who had decades of field experience in Indonesia. On the basis of the field trips, which mostly involved discussions with focal groups in each of the communities, CI decided that a reiteration of the Jakarta meeting including community representatives was unnecessary: except in the case of the spatial configuration fundamental objective, there was minimal change to the original objectives hierarchy. However, this meant that all the stakeholders were never assembled together in the same place, a decision about which I continued to remain uneasy. During 2009 I spent more than a month in Indonesia spread



over three long visits. Language barriers prevented me—or any others from the University of Texas—from meaningful contact with the communities.

An even greater challenge was to elicit weights from the communities on the elements of the objectives hierarchy in such a way that the process was transparent. After trial and error, Kemp hit upon a reliable (that is, stable) method of eliciting weights. Since the relative weights across sub-objectives at any single level of the hierarchy added up to one, 100 pebbles were given to each focus group which then deliberated upon how these would be distributed across the objectives. The weight was simply the number of pebbles (divided by 100). Back in Texas, Dyer observed that this method of eliciting weights appears to be novel in the literature of decision analysis (and also that it assumes that preferences must be compounded additively, a point to which I return below).

By the middle of 2009 data collection and treatment were complete. What remained to be performed was the computational multi-criteria analysis. From my perspective, the project was progressing smoothly at Merauke. In particular, local communities appeared to be supportive of Medco's efforts, especially because they had been promised schools, roads, and other facilities to which they had not previously had access.

## Producing a Portfolio

To complete our part of the project, Ciarleglio used ConsNet to produce a portfolio of plans for the Merauke concession. The computational work was done at the University of Texas. Plans differed from each other in the weights assigned to the fundamental objectives (with weights for all sub-objectives determined by the field work and preference elicitation of stakeholders). We realized that exempting 40 percent of the concession would not suffice for the goals. Kemp and I met with Medco representatives in Jakarta to ask for leeway. Ultimately Medco agreed to set aside around 55 percent, a very high proportion of the land to be dedicated for conservation, though this included a two-kilometer buffer around each village targeted for development. Nevertheless, biodiversity conservation goals were met in each of the solutions presented in our portfolio.<sup>3</sup>

At the end of 2009 we submitted our report to CI (Ciarleglio et al. 2009b) and it was included in their final report to Medco in 2010. Kemp and I met with Medco officials to discuss the report and I traveled to Jakarta to iron out details of the plan. Medco seemed fully satisfied. We were optimistic that the plan would be implemented, and would not only be one of very few systematic conservation plans to be implemented in practice but would also serve as a model of successful collaboration between conservation NGOs, academics, industry, and local communities. Unfortunately, it did not work out that way.



## Denouement

Shortly after the final plan was presented to Medco, CI withdrew from all further involvement with the Merauke project. There was no formal announcement to that effect. Margules and Kemp had left CI, and their replacements, to the best of my knowledge, never contacted Medco about the fate of the plan. I visited the Medco office in Jakarta several times (for the last time in 2011) and was assured that the plan remained on the agenda for Medco in Papua. However, there were rumors that Medco Papua was facing financial problems that had slowed all its operations in that region.

There the matter lay until July 2017 when I was contacted by email by Jeremy Hance, a freelance journalist who wrote for the *Guardian* blog. Hance had been trying to investigate claims of malfeasance by Medco in the region. According to him, CI personnel in Washington had brushed off his questions about our project by noting that the Merauke project was in the distant past and that they had no further comment. (CI probably had good reason to avoid questions. Their regional operations had been subjected to scathing criticism by Mark Dowie [2009] whose book *Conservation Refugees* drew attention to the role of big non-governmental conservation organizations in trampling the rights and destroying livelihoods of local peoples worldwide.)

Hance drew my attention to online information provided by awasMIFEE! which described itself as being “created by independent activists in the UK as an act of solidarity with the social and ecological struggles of the people of Merauke and elsewhere in West Papua.”<sup>4</sup> While I have no means of independently assessing the accuracy of this information, two parts of their online document are worth quoting. The first is about Senegi:

**Kampung Zenegi, Medco Operational Area....** Medco’s approach to the village was deceitful: the company mounted a ceremony on 12th December 2009 in which it presented the village with what it termed a Certificate of Appreciation (*Piagam Penghargaan*). They also asked for the signatures of the village chief and leader of the village *adat* [governing] body on this document, and handed over 300 million Rupiah [US\$33,400].

Several months later, in June 2010, conflict erupted when Medco attempted to remove wood that they had felled from the forests around this village. Local people were aggrieved because they felt there had been no discussion about how they were to be compensated for wood. Nor had the company fulfilled its promises to build a place of worship, a school, hire teachers or repair the road.

The people had regarded the money associated with the Certificate of Appreciation as a token of goodwill, and not as the compensation a company must pay for the wood they extract. But the company had a



different point of view. According to them, the Certificate of Appreciation also had an appendix which they claimed had been discussed at the time. This appendix apparently includes an agreement that wood is to be compensated at a rate of 2000 Rupiah per cubic metre.

In the past, when the villagers have sold wood directly to wood traders, they are normally paid between 180,000 and 200,000 Rupiah per cubic metre. Aside from the deception, this agreement reveals that Medco believes its duty to compensate the community is only for the wood that grows on it. However Medco's operation is more than just a logging concession. They intend to plant fast-growing trees which they can use in their chip mill, which means that local people will not be able to use the land for any other purpose. They are being dispossessed of their ancestral lands.

There are six clans in Zenegi village, and according to the Malind people's customary beliefs, each clan is responsible for different pieces of land. Everybody knows which clan controls which area, and for a company to negotiate the surrender of *ulayat* [communal] rights, they must speak to the chief of each clan, not only the village chief.<sup>5</sup>

Indonesian non-governmental organizations support this story.<sup>6</sup>

The second concerns Buepe:

**Kampung Boepe, Medco Operational Area....** The company agreed with the villagers to relocate them so they could build their factory on the site of their existing village, and plant seedlings on the surrounding land. The area now is restricted and local people cannot even enter. Meanwhile, the company has failed to provide new houses. The people have been forced to stay in other villages, and no longer have gardens. The compensation money they received was only enough to build new houses and eat during that time. The inhabitants of kampung Boepe were also deceived out of their land. A certificate to release the rights to customary land was signed, where the money was also referred to as "appreciation money" (*uang penghargaan*). The sum paid was 100 million Rupiah for an area of 1,000 hectares, which works out at 10 Rupiah per square metre [0.1 US cent]....

**Kampung Sanggase, Medco Operational Area.** During 2011 a prolonged conflict has developed between the people of Kampung Sanggase, and their neighbours in Kampung Boepe and Medco....

The conflict arose over which village had the *ulayat* [communal] rights over the 2,800 hectare site that Medco was using for its wood-chip factory in kampung Boepe. The survey originally carried out by CI for Medco claimed that the people of Boepe had *ulayat* rights over the land, and so the limited compensation that Medco paid was given to



them. However four clans in Sanggase disputed that claim, saying that they owned the land, and the people of Boepe only had rights to use the land.

The first protest action, known as “*tanam sasi*”, involved planting coconut, banana and sugar-cane in a ritual which normally takes place 40 days after someone’s death. After not getting a satisfactory response, on the 17th January Sanggase villagers used a pole to close off the entrance to Medco’s factory. This form of action, known as *pemalangan*, is quite common in Papua. Medco closed the factory until the dispute was resolved, and it appears from reports that it did not reopen for many months. The people were demanding compensation of 65 million Rupiah [US\$7,200] for the land.

By April, tensions were running high. On 20th April, about 20 people from Sanggase, in traditional dress, came to ... Medco Papua’s offices to demand compensation. When there was no response, some of them invaded the offices, kicking and hitting the tables and doors and shouting curses at the company. At one point a leader of Medco was surrounded by angry villagers who refused to let him move, until he was rescued by police.... [E]ventually the company offered to pay a sum of three billion Rupiah, which was accepted by the people in a ceremony on 24th October 2011.<sup>7</sup>

If these reports are accurate, and I know of no reason to question them, the location of the factories follows the recommendations of our portfolio though no other aspects of those plans appear to have been implemented. This is little solace given that Medco had not kept its promises to build schools and roads, and its relations with the local communities was now increasingly exploitative even if it had once been more equitable. What was also troubling was that CI had involved itself in local resource ownership disputes.

## Lessons and Final Remarks

The Merauke analysis remains one of the most complex multi-criteria analyses so far attempted in efforts to implement systematic conservation planning in the field. Reflection on this story leads to two sets of observations on what philosophy has done for the practice of conservation planning in the field and, conversely, three observations on how that practice influenced philosophy.

With respect to the role of philosophy in influencing scientific practice, first and foremost, our involvement ensured that a distinction was maintained between decision analysts and stakeholders. From the first Jakarta meeting, CI personnel presumed that they were stakeholders in the unfolding process rather than outsiders brought in for technical expertise. As many environmentalists (particularly from the South) have pointed out, this type of presumptuous



arrogance has often been characteristic of Northern individuals and institutions operating in the South, as they have the advantages of technical know-how and economic resources. We—that is, those who worked on the project at the University of Texas—prevented such an attitude from dominating the protocol at the first Jakarta meeting; in this we were aided by being in a context in which we, and not CI, were the ones with the intellectual resources and experience to undertake the final multi-criteria analysis that would provide the map to be used for implementation on the ground. However, our success was only partial: members of the local community were not present as stakeholders at the first meeting even though they were subsequently consulted.

The second set of observations consists of three related points. Even before development of ConsNet, philosophical reflection on conservation biology and systematic conservation planning, and attempts to explicate a clear framework for the latter, had come to dominate my approach to conservation practice in at least three ways. First, philosophers such as Bryan Norton and Baird Callicott had already been arguing that biodiversity is a normatively loaded concept. This had led me to propose a culturally relativized attitude to what could count as biodiversity features (or as surrogates for them) that were the goal of conservation planning. Next, as noted earlier, the attempt at explicating the framework of systematic conservation planning led us to appreciate the problem of setting targets and to emphasize the extent to which normative assumptions permeated our work. Finally, conceptual analysis also led to technical innovation in systematic conservation planning. Realizing that minimum area and maximum representation were not dual problems was important. It showed the extent to which the latter can be flexibly approached in the field. There are many other such technical examples. To the extent that Margules and I, through our textbooks, and through prominent collaborators such as Sánchez-Cordero, have had any impact on systematic conservation planning beyond our own work, these philosophical influences may have spread far and wide.

Turning to the converse process: the experience of planning for Merauke has implications for philosophy. First, we were forced to confront the question of who was a legitimate stakeholder in the relevant decisions about the habitat. I will construe this question as posing an ethical problem and call it the problem of *ethical standing*. Elsewhere, I have pointed out that although stakeholder consultation has become fashionable in environmental decisions, very little attention has been paid to the question of legitimacy—who has ethical standing. Moreover, the term “consultation” implies that at least some of the included stakeholders do not have decision-making authority, that the process of including them is ultimately window dressing designed to conceal asymmetries of power. The same asymmetries are typically reflected when stakeholders are selected to sit at the table. As I also argued earlier, analyzing how courts handle claims of legal standing could help answer this question, though only to a limited extent: ethical standing cannot be reduced to legal standing.



During our work we were very careful to maintain our role as decision analysts who supported the decision process but did not participate by voicing preferences because we did not view ourselves as stakeholders. (Of course, there remains a valid worry that, in spite of our best efforts, we were implicitly guiding the decisions. One telling moment, though, was when the stakeholders decided that ecosystem services were subordinate to biodiversity conservation in the objectives hierarchy. Though I found that choice idiosyncratic, I did not voice any opinion.) In contrast, CI personnel routinely injected themselves into the decision and this led me to question whether CI was even a legitimate stakeholder. Why should CI, based in Arlington, Virginia so as to be close to the corridors of power in Washington, DC, have ethical standing over the future of the homes of indigenous communities in New Guinea? Perhaps because it was contracted by Medco? But Medco only had legal standing because of concession given to them in distant Jakarta. Did Medco have ethical standing? The problems noted earlier may well have been avoidable if these issues had been addressed at the beginning of the project. Environmental philosophers, especially in the United States, have spilt much ink over abstract, practically irrelevant questions such as whether species have intrinsic value. When it comes to philosophical questions about the environment that have tangible consequence—for instance, that of establishing ethical standing—environmental philosophers, with very few exceptions, have contributed little of value. That situation needs to be changed. Paraphrasing Marx, it is not enough to interpret the world—the point is to change it.

Second, I have been arguing for several decades that conservation biology presents unique opportunities for philosophers of science insofar as they can be witness to the founding of a science (Sarkar 2005). Conservation planning in the field illustrates this point beautifully, showing how practical choices may become reified as essential components of a scientific framework. Recall how communities' weights on preferences were established by division of 100 pebbles between alternatives. We did that only because it worked in practice (and turned out to be an innovation from the perspective of decision analysis). Suppose that this strategy becomes standardized in the field. What that will mean is that the field will accept the "naturalness" of an additive model for integrating preferences. But there are alternatives, most importantly multiplicative models, and these would have been elided because of an initial practice-guided choice made for convenience. In philosophy of science, this would favor an instrumental rather than realist reading of scientific frameworks. There are other such examples. The main insight to be drawn from this discussion is the poverty of armchair philosophy compared to what the discipline can be if guided by field experience.

Because our plan is no longer likely to be implemented at Merauke, our work there, in one very tangible sense, must be regarded as a failure. However, the idea of systematic planning for habitats using multiple criteria has been



widely disseminated in the Papua region (and elsewhere in Indonesia) because of the visibility of this attempt. In that sense, the work was not a complete failure.

## Acknowledgments

This chapter has benefited immensely from comments and criticisms from both editors, Evelyn Brister and Robert Frodeman.

## Notes

- 1 The discussion that follows is based on Ciarleglio et al. (2009b) and Sarkar et al. (2017).
- 2 The discussion below will adhere to confidentiality agreements that will prevent me from discussing stakeholders other than Medco and CI in more detail and, even for Medco and CI, many individuals will not be named.
- 3 Some typical solutions were published as part of Ciarleglio et al. (2009b) and Sarkar et al. (2017).
- 4 awasMIFEE!, “About Us.” [https://awasmiffee.potager.org/?page\\_id=37](https://awasmiffee.potager.org/?page_id=37) (last accessed August 23, 2018).
- 5 awasMIFEE!, “Reports from Villages.” [https://awasmiffee.potager.org/?page\\_id=60](https://awasmiffee.potager.org/?page_id=60) (last accessed August 23, 2018).
- 6 See, for example, Franky Samperante (November 2011), “PUSAKA in the Land of Papua.” [www.downtoearth-indonesia.org/story/pusaka-land-papua](http://www.downtoearth-indonesia.org/story/pusaka-land-papua) (last accessed August 23, 2018).
- 7 awasMIFEE!, “Reports from Villages.” [https://awasmiffee.potager.org/?page\\_id=60](https://awasmiffee.potager.org/?page_id=60) (last accessed August 23, 2018).

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# 23

## LEARNING FROM A FRACKING FRACAS

*Adam Briggles*

In this chapter, I reflect on my work as a field philosopher in the politics of fracking in Denton, Texas. ‘Fracking,’ entails the use of hydraulic fracturing and horizontal drilling to obtain oil and gas from non-conventional shale formations. Mine is a story about the conflicts that arise when the same place is pictured as both community and resource extraction site. I worked on this issue for five years. For roughly the first half, my philosophical efforts involved trying to find ways to make these two views (community and commodity) compatible. I spent the second half working to pass and then defend a ban on fracking in Denton.

I first report my experiences as a field philosopher, which are told in more detail in *A Field Philosopher’s Guide to Fracking* (Briggles 2015). I then offer reflections with the hope of speaking to themes that pertain to other field philosophers. Finally, I use my case study to ask assessment questions: Who is judging the field philosopher? With what criteria? What evidence indicates success or failure?

### 1 The Fracking Case Study

Field philosophy is social in a way that disciplinary work rarely is. The field philosopher is working with and for—in and against, through and around—other individuals and groups. This poses challenges to the characterization and evaluation of this work, because efforts are distributed across multiple agents and impacts are multi-causal. To talk about what *I* did as a field philosopher risks individuating a complex social activity. The ‘field’ in field philosophy is structured by histories, power, institutions, and other contexts. I will first look at the larger picture and indicate some of the cross-cutting perspectives framing the situation.



The most salient contexts are twofold. First, there was the improvement of high-volume hydraulic fracturing and its convergence with advanced seismic imaging, plus the invention of horizontal drilling at the turn of the twenty-first century. This was the result of public–private R&D efforts that had their epicenter a few miles to the southwest of Denton. The fracking that started on the Barnett Shale in Texas around 1998 would soon push U.S. oil and gas production levels to all-time highs and spark a global fossil fuel boom with massive environmental and geopolitical consequences.

Second, all of this happened in a part of Texas that was experiencing record levels of population growth. The Dallas–Fort Worth metroplex is one of the fastest-growing areas in the country. As construction spread westward, gas wells spread eastward. There was bound to be a clash between energy extraction and neighborhoods. Conflict bubbled up in several towns. It completely erupted in Denton. By 2010, there were over 200 gas wells located within the city limits, and people were protesting outside of City Hall.

There were two main reasons people opposed fracking in the city. For a vocal minority, fracking was a global environmental issue about climate change. Most Dentonites, though, don't object to fossil fuels or agonize about climate change. They do, however, want to enjoy peace and quiet in their homes. Fracking is an industrial process with loud noises, bright lights at night, lots of truck traffic, and noxious smells. In other words, most people who objected to fracking did so on the basis of neighborhood safety, health, and livability.

They took their grievances to City Hall because the city governs land use. The state of Texas regulates mineral extraction, and state laws preempt or trump city laws. Indeed, fracking could occur in residential areas because mineral rights predominate, i.e., carry more legal weight, in Texas than surface rights. It was not that the city council liked fracking or that the city saw it as a major revenue source (it did provide some money, but not much and not consistently). In a conversation with the mayor of Denton, he said “our hands are tied ... we have to approve permits to frack or we'll get sued by the industry *and* the state.”

There were also two main reasons why some Dentonites favored fracking. For one group, it was about supporting an industry that is vital to the Texas economy and the American way of life. For others, it was more personal, because fracking in Denton made them significant money. Elsewhere I detail the distribution of mineral royalties from the gas wells in Denton (Fry et al. 2015). Basically, a few local residents were getting rich (some of them would later spearhead the opposition to the fracking ban), but most of the royalties were held by people who did not live in Denton.

All of this was coming to a head in 2010, the same year that Josh Fox's documentary *Gasland* raised national consciousness about fracking. That was the year after I moved to Denton as an Assistant Professor in the Department of Philosophy and Religion at the University of North Texas (UNT). At the time, I didn't know any of this. And those who did know one or another part of this



story didn't know me. No one thought of this as a philosophical issue. People assumed it was a matter for lawyers, politicians, scientists, and engineers.

There was one person in authority, though, who did see fracking as an interdisciplinary issue with philosophical dimensions. In 2011, Kevin Roden, then a newly elected member of the city council, approached the UNT Center for the Study of Interdisciplinarity (CSID). I was a faculty fellow with CSID, a research center led by Robert Frodeman.

Roden told us that in the wake of a controversial decision to approve a gas well near a park and a hospital, the city was going to revise its gas well ordinance. The city council had appointed an official Task Force to advise them. Three of its five members, though, were from the oil and gas industry, which undermined their credibility. Roden asked if CSID would put together an unofficial citizens' advisory committee to gather wider perspectives and offer recommendations.

CSID was looking for case studies in field philosophy, so I jumped at the chance and used a snowball technique to identify people who might want to serve on what I called the Denton Stakeholder Drilling Advisory Group (DAG). Ten people signed up—nurses, professors, realtors, business people, and others. All of them knew more about Denton and fracking than I did at the time, so I spent most of the first year listening and reading. There was a clear anti-fracking bias to the group. But given the bias of the official Task Force, I felt that this was a permissible counterbalance. Plus, I made sure that DAG invited a wide range of perspectives to take part in our public forums. We hosted eight town-hall style meetings where the public could learn about fracking from representatives of the industries, lawyers, regulators, politicians, scientists, and engineers. I saw my role primarily as a facilitator of these conversations.

I also started blogging to share information I learned from my research. The blog ([dentondrilling.blogspot.com](http://dentondrilling.blogspot.com), now defunct) was my own but many saw it as the work of DAG. What seems odd in retrospect is that we didn't have any social media accounts (we did set up a Facebook page belatedly but rarely used it). Eventually, as I gained mastery of the subject, I began writing articles for *Slate* and op-eds in local and regional papers. I even cultivated relationships with representatives of the industry who took me on frack site tours and hosted meetings with me in their corporate offices.

This irritated other members of DAG who saw the industry as the enemy. To some, my efforts at bridge-building bordered on treason. This tension within DAG gave me a great deal of heartburn. I didn't want the group to fall apart, but I also felt it was in keeping with our mission to try to work toward mutual understanding and compromise. I tended to see the city council as an ally whereas others in DAG categorized them as too friendly to the industry or even hostile to Denton residents. I pictured the issue as a matter of good faith negotiations between reasonable parties. Others in DAG pictured things in far more adversarial terms.



DAG eventually wrote two reports for the city council with recommendations for improving the ordinance. We drew from our meetings and forums as well as comparative readings of other ordinances from cities on the Barnett Shale. The official Task Force frequently referenced our reports. The city council also acknowledged our work as they passed the revised ordinance in January 2013. The ordinance did contain many of our recommendations, though not some of the most significant.

For several months, DAG lapsed, and I thought our work was over. We had struck a compromise that might allow continued resource extraction with added protections for public health and neighborhood livability. Then, in September 2013, we got news of two drilling rigs working within 200 feet of homes, even though the new ordinance stipulated a 1,000-foot setback rule. Over the next few months, we learned that the new ordinance did not apply to this situation because the plats for fracking were issued prior to the 2013 rules and were grandfathered under older, more lax regulations. We also learned that this situation applied to several thousand acres of land in Denton. It looked like we were facing a recipe for mass neighborhood industrialization and potential decline in home values unless we did something more drastic.

In February 2014 we announced the Frack Free Denton campaign to ban fracking in the city limits. We worked with a lawyer to have Frack Free Denton classified as a political action committee (PAC) so that we could raise funds. We utilized the affordance in the Denton Charter that allows for ordinances to be passed via citizens' initiatives (bypassing the need for city council approval). This entailed working with lawyers to craft the language of the ban, gathering approximately 3,000 signatures to support a ballot on the ban, and engaging in a long campaign to promote the ban. Now we had a very active Facebook page and website that I helped to manage. I helped with campaign strategy, produced memes and advertisements, wrote blogs, authored op-ed columns, walked the neighborhoods, spoke in debate-style public forums and neighborhood meetings, organized events, crafted talking points for our supporters, testified at city council meetings, produced short videos, and gave dozens of media interviews.

In November 2014, the ban was approved through popular vote—we won with nearly 60 percent of the vote despite being outspent by the opposition PAC (Denton Taxpayers for a Strong Economy) by about 20 to 1 (much of their money came from oil and gas companies). The day after the vote the city of Denton was sued by the Texas Oil and Gas Association and the State of Texas. The following spring, the Texas legislature considered a bevy of bills aimed at overturning the Denton fracking ban. Eventually, they passed HB 40, which didn't just ban fracking, but also changed the long-standing common law precedent whereby the legality of municipal ordinances is evaluated. Previously, courts largely deferred to towns and cities (albeit within the limitations imposed by preemption and the predominance of the mineral estate). With HB 40, the



standard was changed to favor the industry by stipulating that any local ordinance must be “commercially reasonable.”

I wrote an op-ed that criticized our state representative for voting for HB 40, which prompted her to call me complaining that I had hurt her feelings. At about this time, the President of the University of North Texas called me to his office. He reprimanded me for a tweet in which I called one of our state senators a bad name. The President told me that on his latest trip to the capitol in Austin he had received “an earful” of complaints about my work on the fracking ban. (A year or two later, in a conversation with Frodeman, he said that my reputation with the Texas legislature was “lower than whale s\*\*t.”) In a comment that has gained resonance today, the opposition campaign described me as a Russian operative. Some major donors to UNT told the President that they would not make further contributions until I was fired. Nonetheless, I had been awarded tenure during the fracking campaign.

Through the first half of 2015, I worked with DAG and the city to lobby Austin against HB 40. I continued to write blogs and op-eds. In June 2015, shortly after HB 40 was passed, I was arrested at a fracking site in Denton in an act of civil disobedience. We were blockading the entrance to the first active fracking site after HB 40 had overturned the ban. I had hoped that more residents would protest how their vote had been nullified by state politicians. Alas, the resistance to HB 40 fizzled. In 2016, feeling defeated and burned out, I resigned from DAG.

## 2 Strategic Examination

In this section, I raise some issues that I think are important and that may pertain to other excursions into the field.

### *A The Conditions for the Possibility of Field Philosophy*

I have three things in mind concerning the conditions that must exist in order to do field philosophy well. First, there’s the centrality of access, trust, and credibility. By access, I mean gaining a seat at the table where people are working on a complex problem. I was fortunate that Roden came knocking at the door of CSID, which gave me an entrée into local fracking policymaking. But this was more than luck, because I had already been going to City Hall and arranging informal meetings with people involved in the fracking issue. Once I was involved, I had to educate myself about fracking. It took over a year to feel as though I had earned enough credibility to be taken seriously by members of the public and policymakers.

This is related to what Frodeman and I call the “demand-side” aspect of philosophy in *Socrates Tenured* (Frodeman and Briggie 2016). Philosophers are happy to supply ideas, but what is the wider societal demand for these ideas?



Society rarely articulates its needs as philosophical ones. It is rare for there to be a ‘help wanted’ sign posted for a philosopher in the local newspaper. Field philosophers pay more attention to the demand side. They begin with the needs as defined by people out in the world, and then try to show how these needs have been mischaracterized: You *thought* you only needed technical expertise, but you also needed help thinking through values and first principles.

But even if we get an opportunity to speak (that is, get people to see their need as being in part philosophical), how can we engage them in a philosophical way? It’s not like they’re going to join a reading group on the *Republic*. That’s my second point about the conditions for the possibility of field philosophy. Is there a space for philosophy in public life? Philosophy, at least in its Socratic form, means asking questions and giving reasons in an open-minded search for wisdom. Tradition, authority, and other social and political elements can squeeze this space.

In my case, it is hard to say how much space there was. On the one hand, many people had their minds definitively made up—so much so that questioning and reason-giving were impotent. People literally slammed the door in my face. Fracking politics is a far cry from Jürgen Habermas’s “ideal speech situation” where shared norms govern a space in which participants (motivated solely by the desire to obtain truth!) evaluate each other’s claims on the basis of reason and evidence and in the absence of coercive influences. On the other hand, many people did go through a deliberative process about the issue. Several people told me they changed their minds after listening to me.

The need to gain credibility raises another set of issues. On one occasion, a group of student activists wanted DAG to join them in demonstrations at the next city council meeting where people would break the rules of decorum and be escorted out by the Marshall. DAG decided these tactics would alienate the city council. Those who took part in them would lose credibility in the eyes of the decision makers, and we would have lost effectiveness in this instance. But there is the opposite danger, too: in moderating one’s message and tactics, one might retain credibility at the expense of losing justice—and losing credibility with the activists.

For DAG, credibility was always fragile because none of us was an expert in the technical fields associated with fracking. A bureaucratic society tends to confer authority only on those voices that speak the language of expertise. This meant that we were often more moderate than many fracking critics would have liked. However, in the end I think that our strategy served us well because when this moderate body called for something as extreme as a fracking ban, we had earned enough trust from the public—as well as the political, media, and business elite—to be taken seriously.



## ***B The Philosophical Contributions of the Field Philosopher***

If you did a time–motion study of me across those five years, you would probably find most of my efforts distributed across the following: studying ordinances and other legal documents, trying to understand economic reports, wrestling with scientific and engineering papers about fracking, attending meetings, taking part in informal conversations and interviews, blogging, talking to the media, and developing campaign talking points and literature. Even when writing op-eds, articles, or presentations for the city council I rarely mentioned anything other philosophers would recognize as the stuff of philosophy. Maybe I was just an activist with skill sets in writing, researching, and speaking. In other words, what is philosophical about field philosophy?

This is what happens when one attempts to do philosophy in a complex natural environment. In the fracking case, philosophical questions were woven into political, legal, economic, and technical questions. For example, should fracking operators utilize low-bleed valves that minimize methane leaks? You could try to extract just the ethical dimension of this question and treat it in a philosophical paper. But that won't work if you are trying to answer the question, as DAG was, within its native habitat, in the living context where it arose. To give a live answer, you need to deal with the economic and technical feasibility and the legal flexibility *along with* the moral dimensions. So, the field philosopher spends time studying economics, engineering, and law around low-bleed valves, making the moral case in this native, hybrid language of phil–econ–tech–law. In other words, the non-philosophical issues invariably influence, alter, or at least inform the philosophical assessments of ethics and values.

I can, however, retrospectively categorize the kinds of things I did in more traditional philosophical terms. These include:

- 1 **Making arguments:** For example, I wrote an op-ed called “The case for a fracking ban” as part of an invited duel with a fracking spokesperson in the *Texas Tribune*. I also did live debates. And much of my blog writing was a set of counter-arguments to the opposition's claims about the legal and economic implications of a fracking ban.
- 2 **Framing and meaning-making:** I also did synthetic work to articulate the wider contexts and the relationships between parts. For example, though it seems obvious now, it took quite a bit of work to develop DAG's sense of fracking as a land use issue as opposed to a mineral development issue. Much of our work flowed from altering this basic orientation. By the end, we had our message down to a simple card for voters that showed a picture of a frack site with this text: “We don't even allow bakeries in neighborhoods. Why would we allow this?”
- 3 **Interpreting data:** One of my contributions was helping people make sense of reams of data about health, law, economics, etc. For example, I led



DAG's efforts to compile mineral royalty and other revenue data and to evaluate this in the context of overall state, city, and school district budgets.

- 4 **Supplying theories and concepts:** As an example, I helped people talk in terms of distributive and participatory justice, especially giving voice to questions about jurisdiction or *who* should make decisions. I also drew from critical studies of science and technology to help people both make and challenge arguments about the politics of artifacts and knowledge.
- 5 **Raising questions:** I questioned experts and others in positions of authority. I saw it as my duty to 'ask questions to power,' especially when I wasn't sure that I had the truth to speak to power. I was often in the gas well administrator's office asking: "Why can't we zone gas wells as industrial uses?," "Why can't we have more air monitoring stations?," "When will we get that new map you're working on?," "What exactly is a 'green completion' and can we require it?" I would always write up my findings on my blog.

This last point brings to mind Socrates, the first field philosopher, wandering the agora questioning everyone about their assumptions. But which Socrates are we talking about? On one understanding, he pops the bubbles of certainty—the arrogance that one knows what one is doing and thus can keep doing it.

Much of my work could be characterized in these terms. After all, DAG was tasked with getting the city to examine the ways it had been handling urban gas well development. We dug into policy documents and their assumptions. Yet this questioning wasn't the end game. I didn't see how it could be, because the city had to act one way or the other. It could permit gas wells under some conditions or not permit them, but it could not just exempt itself from activity altogether. So, we offered recommendations for action—at first, modified rules and then the ban.

But there was also another role, Socrates the gadfly—one who spurs action out of indolence. Then the question becomes: "Which action?" In other words, how does the field philosopher determine which outcomes to support? Is the field philosopher only supposed to facilitate dialogue, to nurture ideal speech conditions (e.g., ensuring a fair space for all voices) in the hope that the best argument will carry the day? Or is this democracy-building or procedural focus insufficient? Maybe the task is to identify the underdog and put your weight behind the least popular position on the theory that what we need is the most diverse possible ecosystem of ideas. Or maybe the task is to keep your eyes fixed on the ideals: truth, beauty, justice, and the good. In each moment, then, you ask yourself what would serve those.



### C *The Ethics of Field Philosophy*

What are the responsibilities of the philosopher? The American Philosophical Association (APA) has a Code of Conduct as well as a Good Practices Guide.<sup>1</sup> The Code emphasizes the importance of academic freedom of speech along with philosophers' obligations to their students and professional institutions. The Guide includes many other topics such as diversity, harassment, accessibility, discrimination, and the uses of social media. Tellingly, though, the Guide notes that "we have not attempted to discuss the role or responsibilities of philosophers as potential agents in the public or political sphere...."

Yet this is what matters most for field philosophers. Given that field philosophy is about putting philosophy into practice out in the world, it naturally raises ethical questions that go beyond the norms governing teaching and disciplinary philosophical research. Rather than start with the APA, it would be better to consult codes of conduct from fields that conceive of themselves in more practice-oriented ways. An obvious example would be engineering and the way its codes of conduct evolved from loyalty to client or employer to a commitment to public welfare (Mitcham and Duval 2000). Analogously, field philosophy represents a widening of professional responsibilities to take into account not just the free pursuit of knowledge, but also the broader impacts on society.

Perhaps a better comparison is with anthropology. The American Anthropological Association begins its Principles of Professional Responsibility by stating, "Anthropology ... is an irreducibly social enterprise." The next sentence affirms its goals not just to disseminate knowledge but also to "solve human problems." The statement goes on to note that anthropologists work "in a variety of contexts" with many different kinds of research participants in ways that often create ethical ambiguities and conflicting obligations. The first principle is "Do No Harm," and it guides anthropologists to consider direct and indirect ways in which their work might negatively impact their research participants or society more broadly.

This framing is more suitable to field philosophy, but of course there is no way to codify our way out of ethical dilemmas. For example, advocating for the fracking ban was advocating against the interests of many individuals and companies. In other words, harm was inevitable. To take another example, in thinking about whether to pursue the ban, I had to wrestle with questions of motivations. To be candid, I liked the idea of a big campaign with lots of media. I needed to sort through these selfish desires carefully to discern the appropriate motives for my decisions. Especially when working on controversial issues, there is the temptation to *use* the people involved for professional advancement or to satisfy cravings for attention. As one activist put it to me: some people walk away with rap sheets and some walk away with resumé's. That haunts me, because here I am still using this case study for publications when, for the people living near fracking sites in Denton, this is hardly a 'case study.' It is their life.



## D Choosing the Field

I think of the field-selection process as a Venn diagram where you are looking for the spot with maximal overlap of several factors, including: a) your passion; b) your skill set; c) societal need; and d) possibilities for access and influence. I will just say a word about the second and fourth criteria.

Policy scientists talk about having the skills to get involved in any issue and make productive contributions (see Clark 2002). I think field philosophers should adopt the same attitude. I am *not* suggesting a know-it-all arrogance. To the contrary: field philosophers are not bringing knowledge across domains but questions and concepts informed by their philosophical studies. Indeed, there is a virtue in not having specialized knowledge, because that always comes with a certain *déformation professionnelle*. Field philosophers should be in a position to challenge the assumptions of any given field—the stuff that gets built into supposedly neutral technical lingo and the hierarchies of authority that coalesce around that supposedly neutral core.

Should a philosopher choose a local field? I did so for reasons of ease of access and influence. I figured that staying local would allow me to be embedded in rich ways. I could attend all the important meetings, even at short notice. Field philosophers should work locally if conditions seem ripe. But I would add a word of caution. Being local means your work gets tangled up with friendship. The further you get embedded in a community of practice, the harder it is to disentangle your allegiance to collaborators and your allegiance to wisdom, understood as at least an honest pursuit, and appraisal of the evidence (see Dreger 2015).

## E Field Philosophy and Methodology

In bioethics, Daniel Callahan (1973) has written about how physicians, patients, and hospitals need help with deciding what to *do*. He said that the trick to doing real-time philosophy that is useful for such stakeholders is to develop a “normative ethic, which can presuppose some commonly shared principles” (Callahan 1973, 72). The key word there is ‘presuppose.’ Once you have *settled* on some ethical principles, you don’t need to keep opening them up and questioning what they mean or if they are the right ones. You can just use them as the basis for action. This is the same move for academic disciplines and for instrumental expertise in society: first establish some presuppositions, then act on them.

A key stream of bioethics did just this with the principles of beneficence, respect for persons, and justice. Then with the assumption that we all agree on those, they derive rules for action. Furthermore, assuming we all agree gives those rules the legitimizing social warrant of universal moral consent. I consider this the essence of a method: a pre-established, impersonal procedure through which philosophical questions are treated. Its universal moral purchase, in other



words, cashes out as a standardized epistemic recipe. This is what bureaucratic societies demand from any authorized node of expert authority: that whatever operation is conducted, it turns out the same regardless of the particular person doing the operation. Ideally for the system, there is no person in the loop at all—witness the rise of algorithms.

There are strong impulses toward ‘methodism,’ if you will, which is tied to modern presumptions that what experts have to offer is neutrality or objectivity. Stephen Turner (2017) thinks field philosophers are caught in a trap, both rejecting and embracing expertise, saying both that philosophers need to stop being experts, but also that philosophers are experts and deserve some measure of special authority. Frodeman and I (Frodeman and Briggie 2017) have responded with an appeal to *phronesis*—that the authority of field philosophers rests on their judgment, insights, or virtuous habits of mind.

But Turner might object that our claim rests on an antiquated version of intellectual authority (call it virtue epistemology) that is out of sorts with our bureaucratic age. Rather than expertise and methodology, I’m appealing to personal character (the good philosophical judge). But a bureaucratic society expects impersonal methods. I see the problem in terms of unthinking systems that are philosophy-blind. But the field philosopher meets with skepticism from those systems who see field philosophers as irrelevant or even dangerous aberrations, half-cocked charlatans who might throw things off the rails on the basis of nothing but ‘charisma.’

I’ll give an example. A year after the ban had been overturned, I spoke with a County Commissioner who could barely conceal his disdain for me. Quoting as best as I can from memory, he said:

You have no business opining on the legal implications of a fracking ban. As if your Google search is as good as my law degree! This isn’t philosophy, this is misconduct. Every kook with the internet thinks they know it all. Stick to what you know.

In other words, you are either an expert (in which case you have a neutral method to offer) or you are out of your element and do not belong. This is a challenge for field philosophers.

### 3 Assessment

What counts as good philosophy, either as teaching or scholarship? This is a perennial question that I cannot solve here. My focus will be on how field philosophy introduces new dimensions to this issue.

Perhaps most importantly, evaluating field philosophy requires alternative metrics that capture more than peer-reviewed citations. In the five years I devoted to the politics of fracking, I only published one peer-reviewed article.



It was written with a geographer and published in an economics journal, so most philosophers would not even count it. Still, that's one more article than Socrates! The point is, in the spirit of Socrates, that field philosophers often don't do 'knowledge production' so much as 'insight insinuation.'

I take an Aristotelian view on questions of assessment: first identify the function of a thing and then ask how well it performs that function. A good watch keeps accurate time. A good short-order cook makes delicious food quickly. This can get complicated. Consider the case of the football quarterback. A good quarterback could be assessed by a variety of criteria, some of which are about virtues (arm strength, accuracy, foot speed) and some of which are about accomplishments (touchdowns, wins, championships). The total quarterback rating or QBR combines an array of metrics on every play, considering (for example) not just whether the quarterback completed a pass but how long the throw was, how much pressure the defense was applying, and even if it was during 'trash time' when the score is hopelessly lopsided.

This indicates the ambiguities and intricacies involved in measuring the performance of players in a game with clear rules and objective determinants for winning. Assessing disciplinary philosophical research is analogous to the QBR because specialization allows the development of standards for comparing apples with apples. However, there is more room for debate than in the QBR, because 'winning' or 'excellence,' even in specialized philosophical realms, is not as clear as it is with football and quarterbacks. Witness how often peer reviewers give divergent assessments of the same article.

Things get far more muddled with field philosophy, because the standards are even less clear. It's not even clear *who* should do the assessing of field philosophers: at least, disciplinary philosophy leaves no room for doubt there (it must be fellow experts, our philosophical peers). So what can we say about assessing field philosophers? First, begin with the functions of field philosophers. In my case, that would be helping the residents of Denton think about and work toward better fracking policies. How would we know if I did that well or poorly?

Here is a shot at two basic intuitions: a good field philosopher would (1) say, do, and write things that get the attention of the intended audiences; and (2) get those audiences to see, understand, or act on dimensions of the issue that had gone unnoticed or assumed. In other words, there would be (1) appropriate outputs and (2) desirable impacts. It's sort of like saying the good quarterback would (1) make passes and (2) score touchdowns.

In my own case, for the first part (outputs), I could list something like the following: blog posts (over 200), op-eds and articles in the popular press (over a dozen), videos (about ten), reports for policy makers (two), media interviews (dozens), attending town-hall style meetings (about a dozen), city council and state legislature testimonials (dozens), informal conversations (dozens), presentations and debates (dozens), arrests (one), community organizing activities (dozens), and more.



Maybe that's an impressive productive churn—though probably not for a tenure committee—but is it high quality? How would we know? It could be like a quarterback who throws lots of passes, but they are all incompletions or interceptions. That's why we need the second criterion about a good field philosopher having good impacts. But what would count as a good impact—by what criteria, no, by *whose* criteria? For example, one of my external reviewers for my tenure file was the Mayor of Denton. His criteria (how he measures helpfulness or usefulness) were important for measuring my success.

Although important, the Mayor is also just one perspective. I am tempted to appeal, with Adam Smith, to the 'well-informed impartial spectator.' I would like to imagine this fictional person reading my blog and saying, "Yes, he nailed it, that is the proper way to frame the issue and those are the right recommendations." If I could just find that well-informed impartial spectator, I think I could solve our assessment problem. Alas.

The problems remain because disagreement remains. Instead of the impartial spectator, we have a gaggle of partial spectators—some loved my work, some hated it, many were mixed, others didn't care. Maybe we could do a survey of everyone impacted by my work. In the absence of that, we could use things like articles written by others that mention me and comments left on my blog posts as data. But would everyone's voice count equally, such that we would just tally up those who gave me a positive grade and compare that total with the sum of those who did not? Alternatively, we could say that there's no such thing as bad press and put all mentions of my work on the positive side—I mean, at least I got the county commissioner talking about me!

The former strategy boils down to a popularity contest and the latter is a license for trolling. Neither tells us whether there was a skillful, loving search for wisdom. People might like or dislike field philosophers for bad reasons. This is a real problem. On one hand, field philosophers insist on being evaluated by an extended peer group. On the other hand, we insist on *not* being ranked either by popularity (being liked) or sheer attention (making a big splash).

Another alternative is to look at policy results. Does Denton have better fracking policies after my work than it did before? But this might just beg the question ... again: better by *whose* standards? My answer would be that the local policies are now worse than before. With HB 40 in place, there is now a legislative mandate forcing cities to prioritize commercial profits above other considerations like public health and neighborhood livability. This is not just for Denton, but for all of Texas. For some, this is a great outcome. I think the view from the common good or the impartial spectator, however, would see this as a serious negative impact or 'grimimpact.'

There is another grimimpact to consider. Not long after HB 40 was passed, Frodeman received word that UNT was closing CSID. We never got a satisfactory explanation for this decision, especially considering that the center had exceeded all the benchmarks established by the administration. It is possible that



CSID was shuttered as an act of punishment for my fracking work. It pains me to think that my work may have led to the demise of CSID. Yet all along, I followed the path of truth and justice, at least as best as I could discern the way. Nonetheless, I don't think it would be fair to say that HB 40 or the fate of CSID were my (or DAG's) responsibility. That responsibility rests with those who abused their power to punish those who dared to question and challenge that power.

## Note

- 1 The Code is available at [www.apaonline.org/page/codeofconduct](http://www.apaonline.org/page/codeofconduct); the Guide is available at [www.apaonline.org/page/goodpracticesguide](http://www.apaonline.org/page/goodpracticesguide).

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# 24

## THE FUTURE OF FIELD PHILOSOPHY

### Lessons Learned and Next Steps

*Evelyn Brister, Robert Frodeman, and Adam Briggie*

The essays in this volume demonstrate two things: that philosophers have already been successfully engaged in field research, and that they have revealed a common set of obstacles to working as a field philosopher. These obstacles are not insurmountable. Naming and describing them is the first step toward clearing a path forward, not only for field philosophy, but for philosophy as a whole.

Philosophy is being challenged in unprecedented ways today, as society grows more skeptical of the usefulness of a liberal arts education. These concerns have been growing for some time. In 1917, in “The Need for a Recovery of Philosophy,” John Dewey was already worried about the abstract nature of academic philosophy: “Philosophy recovers itself when it ceases to be a device for dealing with the problems of philosophers and becomes a method, cultivated by philosophers, for dealing with the problems of men” (Dewey 2008, 46). In “How I See Philosophy,” published in 1975, Karl Popper complained:

Admittedly, criticism is the lifeblood of philosophy; yet a minute criticism of minute points without an understanding of the great problems of cosmology, of human knowledge, of ethics, and of political philosophy, and without a serious and devoted attempt to solve them, appears to me fatal.

*(Popper 1975, 54)*

And in 2011, in “Philosophy Inside Out,” Philip Kitcher was vexed by the inward turn that had left philosophers focused on scholastic debates. Kitcher (2011, 254) emphasized our responsibility to be “people whose broad engagement with the condition of their age enables them to facilitate individual reflection and social conversation.”



Clearly, then, philosophers have long recognized the dangers of academic insularity and the need for broader societal relevance. What distinguishes the essays in this volume is their performative aspect, where work relevant to real-world problems is actually getting done. Rather than discussing the problem of dirty hands, these philosophers have gotten their hands dirty—staying up late contributing to climate policy at the IPCC, debating the treatment of wildlife in the Netherlands with officials and the public, developing protocols for the introduction of new surgical techniques, and helping develop innovative approaches to the problem of addiction. These efforts have shaped policy for universities, government agencies, private businesses, and the World Bank.

At the same time, many of the preceding essays express concern that such work is disconnected from disciplinary expectations and rewards. Philosophers are trained to be open-minded and are well-known for their willingness to give unorthodox ideas a fair hearing. It is time, however, for this open-mindedness to be extended to include new ways of practicing philosophy. It is crucial, for both the future of field philosophy and for philosophy in general, that the lessons learned by the authors of these essays—lessons from the *doing* of philosophy—are integrated within the incentive structures of the profession.

These changes begin with opening up the criteria not only for hiring but also for tenure and promotion. This means supporting and developing the characteristics that set fieldwork apart from traditional research: collaboration with non-philosophers throughout the academy and with various groups out in the world; a preference for action over extended discussion; and a willingness to define impact as making a concrete, practical difference to people's lives. It also means fostering a culture where undergraduate and graduate students in philosophy are trained in the practice of the collaborative skills demonstrated across these pages, as well as in the flexibility to adjust to other work cultures and to changing expectations on the fly. The practical mechanisms for such work will vary—some will add a field component to their classes, perhaps with an extra credit hour, as is common across the sciences; others may require that one chapter of a dissertation be devoted to integrating its new insights in particular situations. But, by whatever means, the point is to recognize that twenty-first-century philosophy needs to reframe its conception of research to include the variety of ways by which philosophy is made relevant to particular social problems. Philosophical research in the twenty-first century ought to promote translational activities between the armchair and the field.

How should we chart the future of field philosophy? It's certainly possible that its future will be like its past—that is, marginal to professional practices. Valerie Tiberius's 2017 study on the goals of the profession found that a majority of philosophers value interdisciplinarity, relevance, and engagement. She found that "philosophers think it's a good thing for philosophy to be open to input from other fields, written in a way that allows it to be beneficial to other



fields, and communicated to the public in ways that are helpful” (Tiberius 2017, 74). But the study also found that there was less support for incorporating these values into graduate and undergraduate teaching or for making them central to how philosophers evaluate each other’s work. The key lesson from the case studies collected in this book is that coordinated training and support for these initiatives is essential.

There are two dangers to a professional future that restricts itself to the status quo: the missed opportunities for producing interesting philosophical work, and the lost chances to demonstrate the continued relevance of philosophy to a skeptical public. The desire for philosophy to be more engaged with societal problems cannot be actualized without putting into place strategies, policies, and training efforts to support the fulfillment of this desire. In the absence of these strategies, one would still find occasions for engaged philosophy: philosophers would pursue creative and valuable projects, and they would produce beneficial impacts. Yet this work would remain scattered, as isolated, one-off experiments. This is not to disparage the fieldwork currently being done. It is rather to point out the ways in which contributors to this volume and other contemporary field philosophers are swimming upstream. Even as they work *with* and *for* various stakeholders, they work *against* current institutional structures and incentives. They even work against their own training, the disciplinary biases about what counts as “real” philosophy.

There is another, bleaker possibility to consider. The authors of these essays have pointed out risks and uncertainties that accompany fieldwork. The long-term success of collaborative projects can depend on resources and personnel that we have little or no control over. Developing the necessary relationships may take an investment of years, and the most high-impact roles may unexpectedly require additional support from university administrators. If expectations for clearly quantifiable short-term impacts continue to rise and university budgets for humanities research continue to shrink, then experiments in field philosophy could diminish along with tenure-track appointments. Similarly, tenure provides the protection and workforce security needed to encourage engagement in research programs that are innovative, outspoken, and risky—but also impactful. A decline in the protections of academic freedom provided by tenure could negatively affect philosophers’ ability to do socially-relevant work.

It is these headwinds that we are most concerned about. As budgets for humanities research get tighter, the tendency will be to retreat into more traditional activities, to concentrate on the ‘core’ functions of philosophy. To be clear, we support these traditional functions: philosophy, in the field or not, is dependent on having the luxury of time to devote to careful, wide-ranging thinking. In this sense, all philosophy is unpragmatic in nature, for it asks people to step back from the hurly-burly of life to think about first and last things. But such contemplation is only fully realized via an enactment where its results are



brought into the world for field-testing. The field philosopher thus represents the fulfillment of the philosophic enterprise.

To imagine a more thriving future for philosophy, then, we have to think about expanding its repertoire. In other words, how do we institutionalize field philosophy? How do we make fieldwork into a systematic practice? And how do we demonstrate to university administrators and society at large the capability of field philosophy to directly contribute to the public good? This involves more than good intentions: philosophers need to become sought-after research partners across the public and private sectors. Field philosophers need to demonstrate the value of engaged philosophical fieldwork to potential collaborators, funders, journal editors, and university administrators, and they need to raise awareness of field philosophy's ability to achieve tangible real-world impacts. At a time when disciplines are expected to demonstrate their value, field philosophy represents an opportunity to show, in real-life terms, the impact philosophy can have. Of course, philosophers will still have to write up their results, just like economists do, but their articles should get credit even when the results are practical, not just theoretical.

Part of the answer will turn on the creation of institutional structures for the promotion of field philosophy. Organizations such as the Public Philosophy Network (PPN) and the Association of Practical and Professional Ethics (APPE) already exist. These organizations provide a valuable service by offering venues for philosophers to report on the field philosophy they have done. Other professional organizations can contribute by offering recognition and training opportunities. For example, the American Philosophical Association's Committee on Public Philosophy can provide support not just for writing public op-ed pieces but also for working with policymakers, as it has begun to do by hosting sessions at conference where philosophers can exchange strategies and lessons learned. Other professional organizations could follow the Philosophy of Science Association's efforts to establish a caucus for socially engaged philosophers. These efforts should be followed by the establishment of best practices in making judgments for tenure and promotion.

Field philosophers remain philosophers, and so theoretical issues also arise in the pursuit of field philosophy. The essays in this volume demonstrate the breadth of theoretical and meta-philosophical questions raised by field philosophy. We see a new theoretical space opening up around field philosophy, enough to satisfy the theoretical inclinations of philosophers as they create and refine new research practices. What are the limits of the analogy with fieldwork in ecology or anthropology? How is fieldwork 'translational,' and in what sense is it 'empirical'? Is it a species of public philosophy, or an entirely new entity different from both disciplinary philosophy and public philosophy? And what is its relationship to activism?

Central among these issues will be an account of impact. A philosophy of impact will raise a wide array of questions concerning the various types of



impacts (economic, cultural, and ecological), matters of timeline (short, medium, and long-term), and the possibilities of developing metrics for impacts. There will be questions of evaluating intentionality—whether field philosophers are responsible for unintended consequences, as well as the issue of giving academic credit for practical engagement even when real-world contingent circumstances foil the successful completion of a project. There is also a reflexive element to consider: to what degree should we rely on self-reports of philosophers having an impact versus relying on others' recognition of their impacts, given people's natural reluctance to admit being influenced?

In keeping with the practical bent of this volume, we conclude with suggestions for action. Let's roll up our sleeves, as there is much work to be done.

To begin, philosophers should not work at cross-purposes: there are changes we can make in our own communities to support socially-relevant work. If you are in a position to influence hiring, promotion, or tenure practices, then look for ways to adjust standards so that engaged work is counted and valued. In hiring, write job descriptions that attract young scholars who have taken the risks to do interdisciplinary or transdisciplinary work. Let them know that you are cultivating spaces that will promote next generation philosophical practices. Revise your department review and tenure standards to recognize and reward the efforts of people who are pushing the profession in new directions. Edit department websites to offer creative stories and unorthodox metrics about how you and your colleagues are taking philosophy into the field, and be in contact with your institution's news service so that they can publicize your achievements. Craft talking points for your deans, provosts, and presidents about how the territory and impact of philosophers might be larger than they assume.

If you are thinking about a new research project or about adding a fieldwork component to your current research agenda, frame your thinking in terms of pathways to impact. Start with your passion and expertise, and then consider where they might find traction in the world. Ask yourself: Who might find my research helpful, and how would I frame it to best fit their needs? And then contact those people, and ask for advice for making your research relevant to them. Expand your sense of what counts as research or 'doing philosophy' to include this contextualizing and relationship-building work. After all, trying to figure out how one can be helpful—what situations afford the room to philosophize—is itself a perennial philosophical challenge. Building partnerships, for example, with a local hospital or Rotary Club can itself be an act of philosophy and can establish the conditions to produce impactful work.

If you are in a position to influence the education and training of the next generation of philosophers, then consider these areas as ripe for fieldwork. Learn from anthropologists, clinical psychologists, and other applied social scientists across campus about how they incorporate fieldwork into their classes and how their students balance theoretical scholarship with pragmatic and clinical experience. Learn from the business school on your campus how they cultivate



internship opportunities for students, and take advantage of existing cross-campus support staff. Talk to staffers in your local government to see if they'd be interested in interns from philosophy. This will challenge you to think about what your students might have to offer and how you can better teach those skills. And provide information to graduate students about jobs outside traditional philosophy departments where their philosophical training may open up opportunities for extended interdisciplinary work or a career of direct engagement in addressing social problems.

Although field philosophy has been framed here as a research method, it may also play a role in undergraduate teaching. Try out a service learning component in your syllabus. You don't have to determine in advance what will be philosophical about it—the exercise of extracting philosophical insight from direct experience is the essence of field philosophy and can be an appropriate and memorable learning experience for undergraduate students. In short, look for ways to get students into the field and learn reflexively from these experiments.

Field philosophy continues the 2,400-year history of philosophers responding to evolving cultural needs and opportunities. Philosophy has always pushed boundaries, redefining itself on multiple occasions. Philosophy has periodically undergone changes in its self-image, methods, and role; field philosophy is a revision that responds to the demands of technoscientific complexity, the rate of cultural change, and the changing role of the academy in twenty-first-century society. We should not assume that twentieth-century styles of philosophy will work in the twenty-first, as many of the giants of twentieth-century philosophy would admit. At a time of great social uncertainty, economic and technological change, impending environmental apocalypse, and political dysfunction, field philosophy shows how philosophers can work, in very concrete ways, to make this a better world.

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